

MANUFACTURERS RECORD

The Bricker Amendment

THE so-called Bricker amendment is designed to plug the legal loophole which permits internal legislation to be passed to carry out a treaty which would be unconstitutional except for that treaty.

Today there are being drawn up for submission scores of multi-lateral treaties designed as a base for domestic legislation, supreme over specific provisions of the United States Constitution. These are being prepared by Commissions of the United Nations on which sit not one single elected representative of our people. Any one or more of these treaties can be directly opposed to our Constitution and Bill of Rights, and supersede them.

Advocacy of the Bricker amendment is not criticism of the primary purpose of the United Nations which is to strive for collective internal security. It is a weapon of defense against evasion of our Constitution and encroachment on our personal liberties which the Constitution guarantees.



When You Say "Rush" Connors Staff Does It!

When steel is needed quickly, tell Connors staff to "Rush!" We thoroughly understand the meaning of the word, as many Connors customers will testify.

We know that each hour you lose waiting for delivery of your steel is costly.

The flexibility of Connors mills and our zeal to meet your deadlines add up to speed in processing your order. Further, our ready access to excellent truck and rail transportation facilities helps speed delivery of your order.

Next time you're rushed for steel, tell it to Connors!

CONNORS PRODUCTS

**Concrete Reinforcing Bars
Hot Rolled Strip
Merchant Bars
Special Sections**

CONNORS STEEL DIVISION

H. K. PORTER COMPANY, INC.
OF PITTSBURGH

P.O. BOX 2562 • BIRMINGHAM, ALA.

FLORIDA

AMERICA'S GREATEST
"DOUBLE-FEATURE" OPPORTUNITY!

...for Pleasure...

There's the Florida of "Super Colossal" vacations where more people have more fun-in-the-sun...all year 'round...than anywhere else on earth. So any time the spirit moves you...



Come on down...



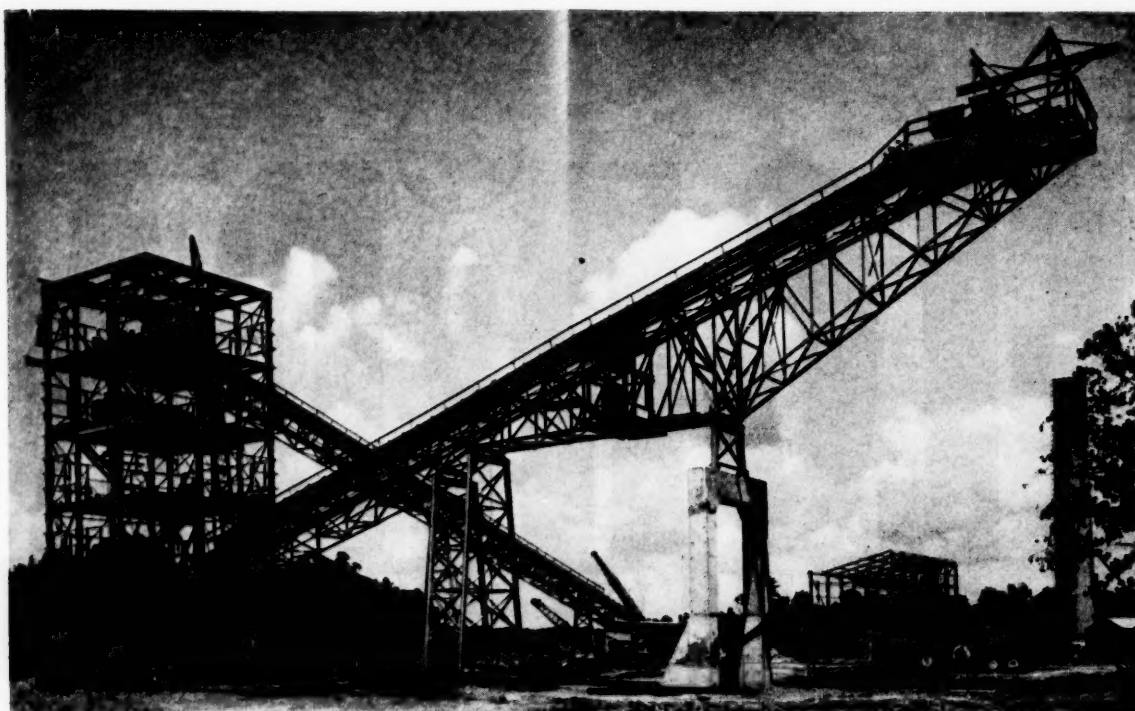
...for Business while you are here

There's another Florida...a forward-looking, aggressive state with a sound and expanding economy...based on amazing agricultural and livestock growth...on increasing trade and commerce, especially by air...on rapid industrial development to serve fast-growing markets. So when you come for a vacation...look for a lifetime opportunity...



FLORIDA POWER & LIGHT COMPANY





Conveyor and crusher house of the new Barry steam plant, built for the Alabama Power Co. at Mobile, Ala. Structural steel fabricated by O'NEAL, 800 tons.

More **POWER** for Alabama



Alabama Power Co. built with structural steel when they needed more space to generate more power. For there is power in steel itself: power to support a cantilever conveyor boom, to support massive crusher machinery at required levels and to resist its vibrations over the years. Structural steel has the power to endure.

O'NEAL STEEL WORKS

Birmingham 2, Ala.



MANUFACTURERS RECORD FOR

MANUFACTURERS RECORD

ESTABLISHED 1882

Devoted to the Industrial Development of the South and Southwest

Volume 122

September 1953

Number 9

Business Trends	7
New & Expanding Plants	13
Little Grains of Sand	18
Editorial	27
Sales Volume to Taper Off as Boom Flattens Out By Robert S. Byfield	28
T-7 Holds Promise for Cotton Textiles	29
The Labor Market	30
By Caldwell R. Walker	
Changing Federal Attitude Toward Business-Managed Power Companies	31
Revival of Freight Absorption in Basic Materials	32
By Sidney Fish	
New Steels Lessen Industry's Dependence on Imported Alloys ..	34
Industrial Expansion	36
Federal Appropriations Cuts to Save South \$2.8 Billions	38
Southerners at Work	39
Port Activity	41
South's Construction Totals for August	45
By S. A. Lauver	
New Products	47
Business Notes	56
Who's Where	57
Financial Notes	60
Index for Buyers	66
Index of Advertisers	68

MANUFACTURERS RECORD PUBLISHING CO.

Publishers of Manufacturers Record, Construction, Daily
Construction Bulletin and Blue Book of Southern Progress.

Frank Gould, President

Wm. M. Beury, Vice President

C. J. O'Donnell, Treasurer

Wm. M. Beury, Editor

Richard R. Harwood, Jr., Mgn. Editor

Caldwell R. Walker, Editor, Business Trends . Samuel A. Lauver, News Editor

Robert S. Byfield, Financial Editor Sidney Fish, Industrial Analyst

PUBLICATION AND BUSINESS OFFICES

109 MARKET PLACE, BALTIMORE 3, MARYLAND

F. O. Schroeder, Southern Business Mgr.—Baltimore Office.

R. S. Kendrick, 1430 Clairmont Rd., Decatur, Ga., Tel. Crescent 4577

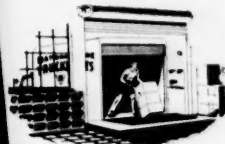
J. E. Eierman, Circulation Mgr.

"The Manufacturers Record," published monthly by Manufacturers Record Publishing Co., 109 Market Place, Baltimore 3, Md. Entered as second class matter at Baltimore, Md., under the act of March 3, 1879. Volume 122, No. 9. Single Copies 35c. Back Numbers over three months old, 50c. Copyright September, 1953 by Manufacturers Record Publishing Co., all rights reserved.

SEPTEMBER NINETEEN FIFTY-THREE

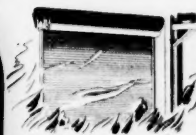
CUT
DOOR
COSTS
with the
"PLUS"
Features
of
KINNEAR
Rolling
Doors

High Efficiency! Doors
coil overhead, clear the
entire opening.



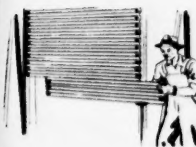
Extra Space! All floor,
wall, and ceiling space
is always fully usable.

Convenience! Smooth,
easy, upward action
saves time and labor.



Extra Protection. All-
metal curtain repels
fire, theft, and wind.

Extra Durability. Strong
resilient curtain with-
stands more punishment.

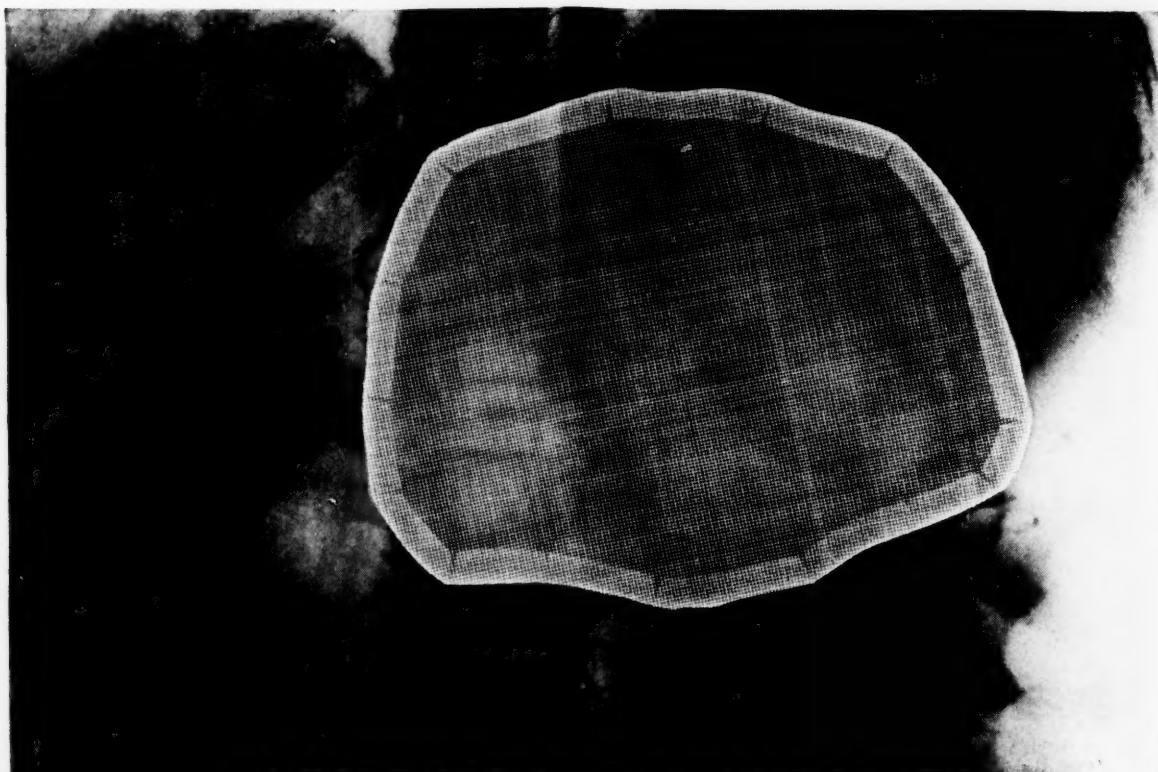


In addition to the extra efficiency of coiling upward action, Kinnear Rolling Doors offer the rugged durability of all-metal interlocking-slat construction. Also ideal for use with Kinnear Motor Operators, controlled by pushbuttons from any number of convenient points. Built to fit openings of any size, for easy installation in old or new buildings. Write for complete details today.

The KINNEAR Manufacturing Co.

Factories: 1600-20 Fields Ave., Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, California
Offices and Agents in All Principal Cities

KINNEAR
ROLLING DOORS



The stainless steel screen is so fine (50 x 50 mesh from 18-8 wire 0.003" diameter) it had to be emphasized by photographic technique for this picture.

Inside Her Tummy is a Mesh of Stainless

This photo of an X-ray shows a fine screen of stainless steel permanently imbedded in abdominal muscles. Surgeons insert this mesh to reinforce hernia or other persistent openings.

Stainless is used because it doesn't corrode, nor set up electrolysis with the body chemistry.

Stainless steel is certainly one of the most versatile, if not *the* most versatile of metals.

Probably more tons of stainless go for trimming automobiles than for anything else. Here the beauty of its gleaming all-the-way-through surface is the valued feature. But as atomic energy and radioactive materials become more widely used, an unmeasured, tremendous new frontier is opening before stainless. It's vital to the production of atomic energy. It has become the standard material used for "hot labs." Even a small laboratory for a private company, using radioactive materials, takes several hundred square feet of stainless.

Republic is the largest manufacturer of stain-

less and alloy steels. It makes so many types of ENDURO Stainless because stainless is so versatile. You may need stainless that is magnetic or non-magnetic. Republic has it for you. Perhaps you want ductility. Or machinability; corrosion resistance; heat resistance; or high strength-to-weight ratio. Republic can provide you with an ENDURO Stainless Steel emphasizing whichever quality you need.

This unexcelled range is part of Republic's 3-Fold Service for Steel Users:

1. to produce the greatest variety of steels.

So that it can . . .

2. recommend from this range the exactly right steel for your job.

Then . . .

3. put trained men in the field who can help you use your steel to the utmost advantage.

When your product needs stainless steel, think of ENDURO—the stainless backed by Republic's 3-Fold Service.

REPUBLIC STEEL

GENERAL OFFICES • CLEVELAND 1, OHIO

WORLD'S WIDEST RANGE OF STEELS AND STEEL PRODUCTS



BUSINESS TRENDS

Boom Is Still Champion

Aside from changes consistent with change of season, there is nothing apparent on the business horizon to indicate any significant change from the trend of the past six months.

Since the beginning of 1953, business activity in the United States and in all geographical regions of the country has become established upon a record high plane from which month to month deviations have been insignificant.

THE NATIONAL SCENE

In round figures, total business of the United States is running around 10 per cent higher than in 1952.

Strongest sectors are Manufacturing and Trade, with Construction beginning to slide away from its phenomenal gains of previous months and years.

Construction's decline has been anticipated, and is scarcely likely to make a very great dent in the total amount of business activity, since building plans, both residential and industrial, continue to maintain an impressive outlook.

The two weak spots in National economy continue to be Mining and Farming, with the former weakness due entirely to ailment in the Coal Mining sector. Metal Mining, Non-metal Mining and Petroleum Extraction continue to rack up outstanding production records.

In Farming, the outlook is for further decline from the records of previous years.

While improvement has occurred in the status of some crops, drought conditions have accentuated weakness in others, and annual Farm Income is expected to run considerably less for 1953 than it ran for 1952.

THE SOUTH

The 16 Southern States are maintaining their strength in Construction and Trade, but continue to lag in Manufacturing, Farming and Mining.

Based upon the first six months of the year, the South appears due to wind up 1953 Business Volume with a figure comparatively one per cent below that of the Nation at large.

Considering the fact that the first weaknesses likely to be felt in National activity are in the realm of Auto production and Machinery output, in neither of which the South is very strong, it appears quite likely that the early months of 1954 will see the Region back in strong running again.

Should Construction activity continue strong in the South for another year, it is not unlikely that the Region will again pace the Nation in 1954 as it did in 1952 when material restrictions curtailed the output of both automobile and machinery plants.

ON THE UPWARD SIDE

Business Output itself is the strongest factor in the strength of today's economic picture.

It is traditionally wise to string with the champion, and until the current boom shows definite signs of slowing down, it undoubtedly is today's forecasting champion.

ON THE DOWNWARD SIDE

Indicators toward a downward tendency are becoming more numerous and more impressive:

Inventories continue to build up, along with the complementary factor found in consumer credit.

Steel output while establishing a record for the first six months, is now considerably below capacity—around 95%.

Automobile manufacturers are optimistic about future markets, but dealers are less buoyant.

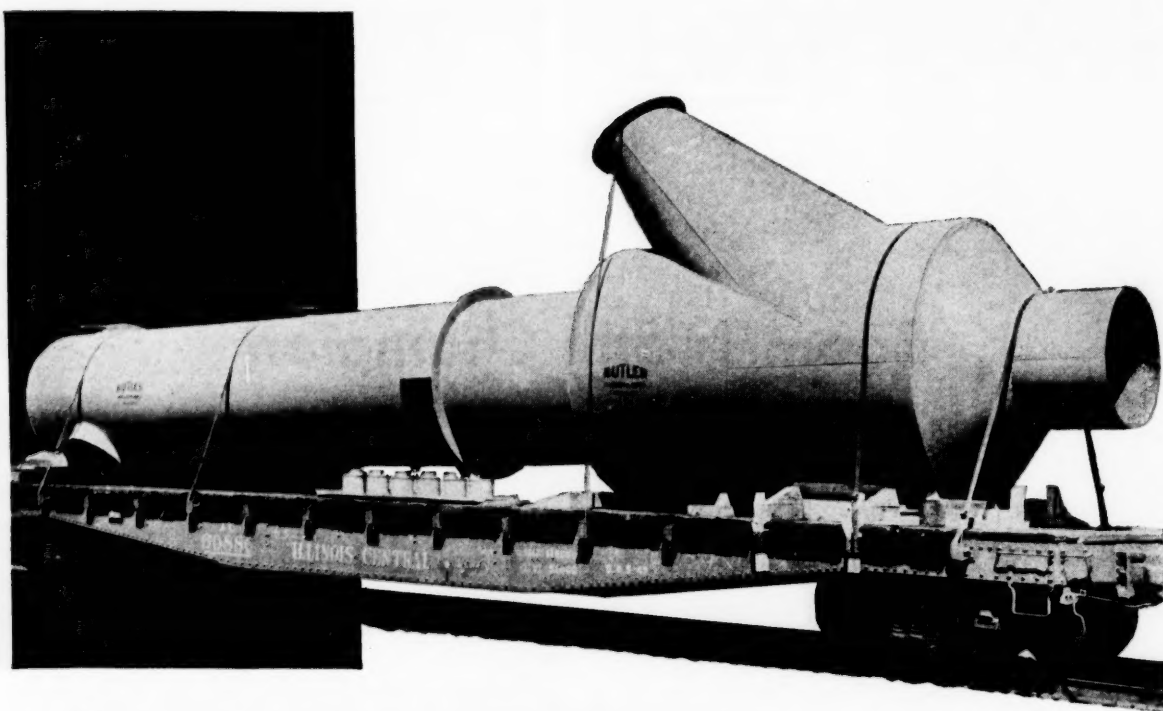
Dealers today have more unsold cars on their floors than they have had since the war at this time of year.

One automobile factory has closed down entirely (reported to be temporary), and output has been curtailed in at least one other. Detroit reports a declining rate of hiring by automobile manufacturers.

The stock market remains somewhat despondent, a possible reflection of pessimistic outlook on the part of holders of industrial shares.

These still are but vague signs, without definite indication of business faltering in any sector.

(Continued on page 9)



Chemical Spray Tower

...another **BUTLER** custom-built steel product
for the chemical industry

This large spray tower is off to work in the chemical industry. It will collect and dissipate harmful mists and noxious fumes before they contaminate products in process or injure plant personnel.

Butler has the skilled engineers and craftsmen, and modern plant facilities to *do the job right*. You can get *exactly* what you need—whether it's one special vessel as big as a flatcar or thousands of a production item—in a hurry! More than 50 years' experience in steel fabrication is your guarantee of Butler quality.

BUTLER CAN DO IT BETTER

Steel Plate Work • Stainless Steel Fabrication • Code Pressure Vessels
Welded Structurals • Boiler Breeching & Stacks • Tanks for All Purposes
Press Forming, Breaking & Punching • Anhydrous Ammonia Bulk Storage Tanks
LPG Bulk Storage Tanks • Feed Mill Bins and Hoppers

Write, phone or wire for complete information, today. Remember, the Butler plant at Birmingham, Alabama, is ideally located for fast, low-cost shipments through the South.

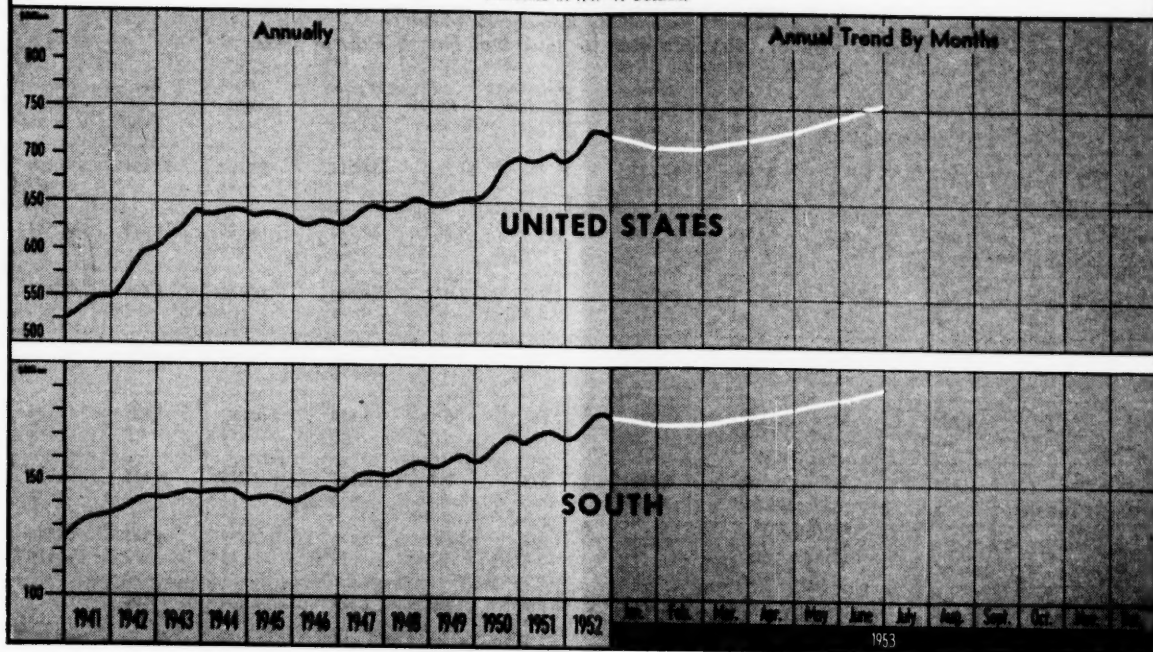
BUTLER MANUFACTURING COMPANY

904 Avenue W, Ensley, Birmingham 8, Alabama

MANUFACTURERS RECORD FOR



PHYSICAL VOLUME
OF
ALL GOODS TURNED OUT BY PRIVATE ENTERPRISE
(MEASURED IN 1947-49 DOLLARS)



Regional Indicators

(Continued from page 7)

Farm Marketings (\$ Mil.)

	Jun. 1953	May 1953	Jun. 1952
South	\$ 654	\$ 484	\$ 690
Other States	\$1,491	\$1,461	\$1,671
United States	\$2,145	\$1,945	\$2,361

Construction (\$ Mil.)

	Jun. 1953	May 1953	Jun. 1952
South	\$1,088	\$1,003	\$1,006
Other States	\$2,097	\$1,899	\$1,976
United States	\$3,185	\$2,902	\$2,982

Mineral Output (\$ Mil.)

	Jun. 1953	May 1953	Jun. 1952
South	\$ 579	\$ 570	\$ 565
Other States	\$ 493	\$ 489	\$ 438
United States	\$1,072	\$1,059	\$1,003

Manufacturing (\$ Mil.)

	Jun. 1953	May 1953	Jun. 1952
South	\$ 5,041	\$ 4,810	\$ 4,499
Other States	\$17,953	\$17,378	\$15,875
United States	\$22,994	\$22,188	\$20,374

National Indicators

	Jun. 1953	May 1953	Jun. 1952
Personal Income (\$ Bil.) ...	\$ 285.9	\$ 284.7	\$ 268.1
Ave. Weekly Earnings (Mfg.)	\$ 72.04	\$ 71.63	\$ 66.83
Consumer Credit (\$ Mil.) ...	\$ 27,051	\$ 26,715	\$ 22,446
All Inventories (\$ Mil.) ...	\$ 77,550	\$ 76,836	\$ 72,913
Mfg. Inventories (\$ Mil.) ...	\$ 45,496	\$ 44,970	\$ 42,892
Trade Inventories (\$ Mil.) ...	\$ 32,054	\$ 31,866	\$ 30,021
Bank Debits (\$ Mil.) ...	\$154,106	\$142,175	\$139,759

	Jun. 1953	May 1953	Jun. 1952
Ave. Weekly Hours (Mfg.) ...	40.7	40.6	40.5
Carloadings	3,204	3,883	2,606
Consumer Prices ('47-'49=100) ...	114.5	114.0	113.4
Retail Prices ('35-'39=100) ...	209.7	208.2	210.6
Wholesale Prices ('47-'49=100) ...	109.4	109.8	111.2
Construction Costs ('47-'49=100) ...	124.9	123.9	120.8
Electric Output (mil. kw. hrs.) ...	42,733	41,995	36,052

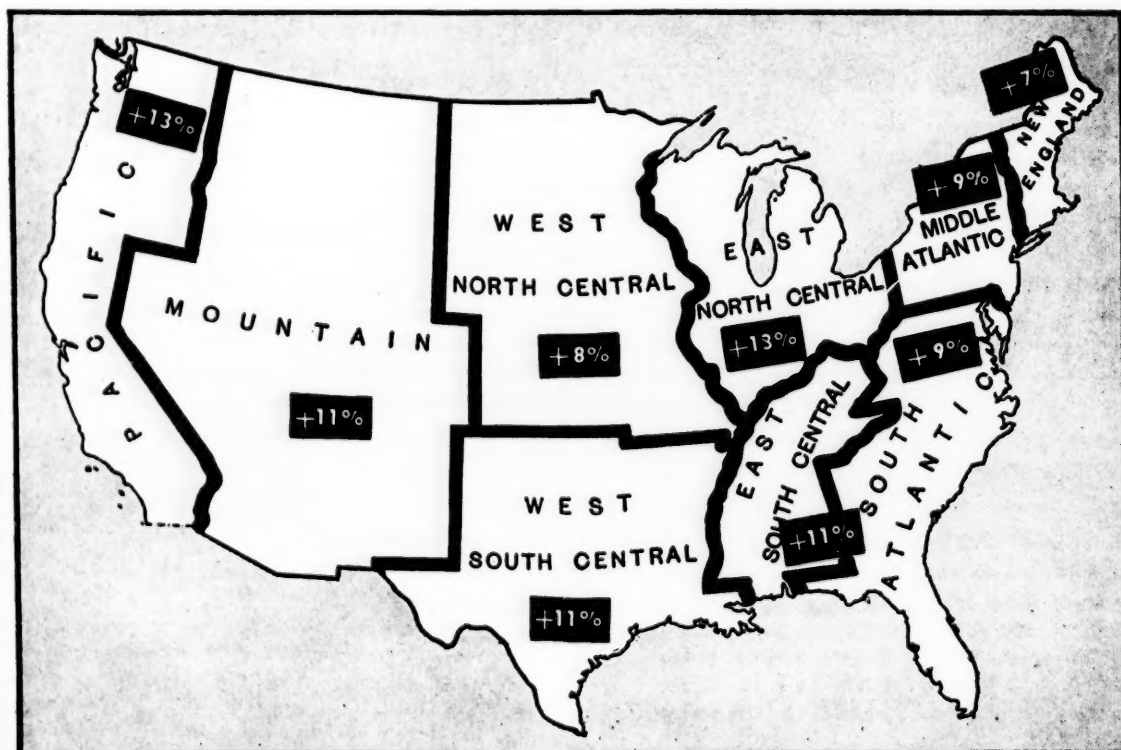
(Continued on page 10)

NATIONAL BUSINESS VOLUME

(Continued from page 9)

Business Volume By Regions (\$ Million)
First 6 mos. of 1953 with gain (or loss) over First 6 mos. of 1952

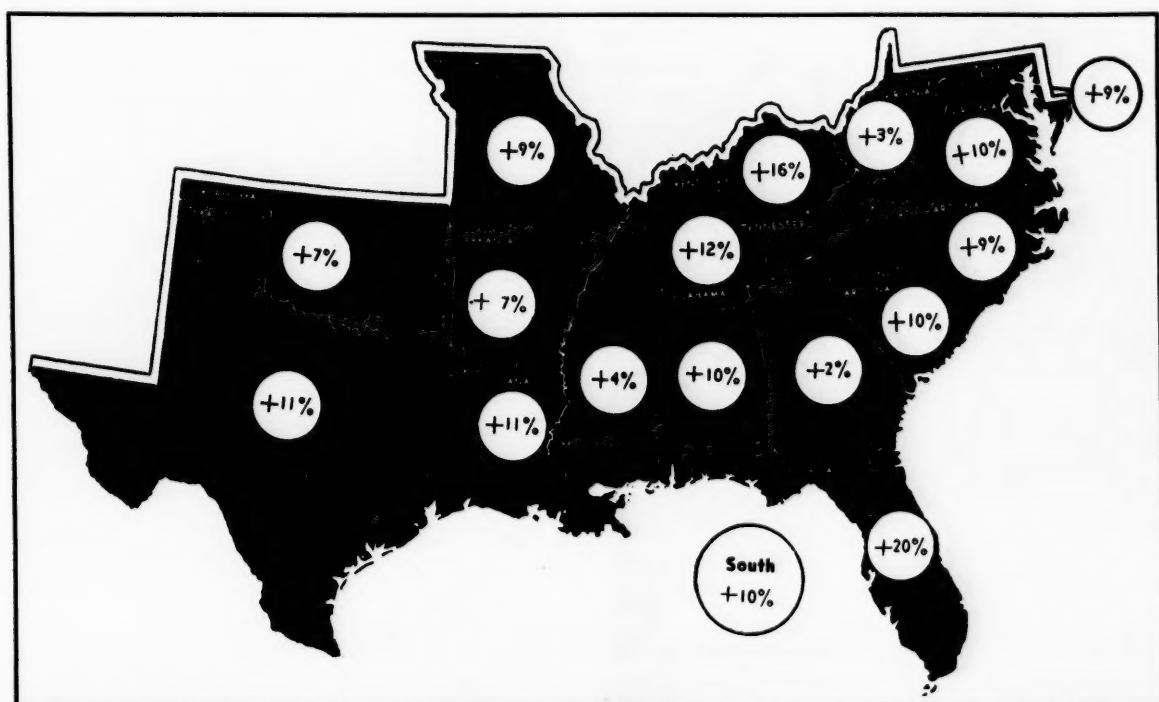
	Farm- ing	Min- ing	Con- struc- tion	Manu- factur- ing	Utili- ties	Fi- nance	Whole- sale Trade	Re- tail Trade	Serv- ice Trade	Busi- ness Volume
New Eng.	\$ 400 -6%	\$ 23 even	\$ 841 +1%	\$9,882 +9%	\$ 922 even	\$1,223 +5%	\$5,013 +1%	\$5,729 +13%	\$ 921 +4%	\$24,954 +7%
Mid. Atl.	1,048 even	612 -7%	2,851 +5%	32,718 +10%	4,419 +3%	4,707 +2%	32,118 +11%	16,620 +8%	4,490 +1%	99,583 +9%
E. N. Cen.	2,762 -4%	489 -4%	3,116 +8%	43,787 +17%	3,842 +4%	3,077 +4%	24,664 +15%	18,201 +7%	3,504 +5%	103,442 +13%
W. N. Cen.	3,666 -1%	507 +10%	1,189 +2%	10,468 +12%	1,832 +3%	1,313 +4%	12,213 +10%	7,846 +6%	1,275 +7%	40,309 +8%
S. Atl.	1,283 -5%	579 -10%	2,516 +2%	13,391 +10%	2,206 +2%	1,670 +9%	9,620 +8%	10,602 +13%	1,681 +5%	43,548 +9%
E. S. Cen.	824 -5%	369 -12%	955 +19%	5,489 +12%	872 even	568 +8%	4,857 +15%	4,275 +13%	675 +2%	18,884 +11%
W. S. Cen.	1,226 -17%	2,457 +7%	1,771 +14%	8,430 +11%	1,729 +2%	1,132 +5%	7,471 +15%	7,672 +13%	1,247 +7%	33,135 +11%
Mount.	856 -6%	742 +4%	626 +5%	2,113 +14%	756 +4%	388 +11%	2,521 +19%	2,904 +12%	505 +7%	11,411 +11%
Pacif.	1,475 -8%	622 +1%	1,872 +16%	12,251 +13%	1,988 +7%	1,710 +7%	9,977 +26%	8,884 +12%	2,043 +2%	40,822 +13%
U. S.	13,540 -5%	6,400 +1%	15,737 +8%	138,529 +13%	18,566 +3%	15,788 +5%	108,454 +12%	82,733 +9%	16,341 +3%	416,088 +11%

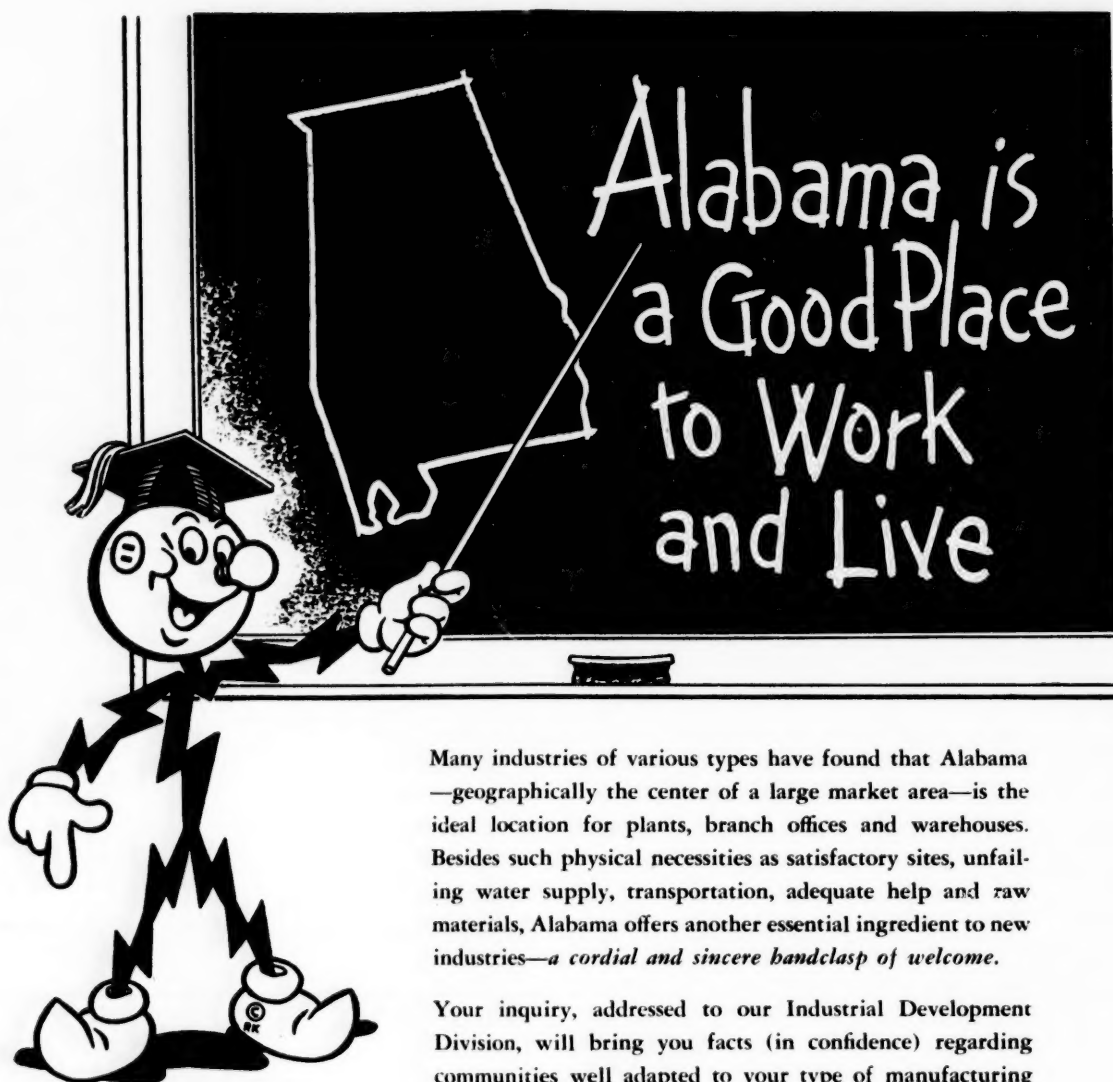


SOUTHERN BUSINESS VOLUME

Business Volume By Regions (\$ Million)
First 6 mos. of 1953 with gain (or loss) over First 6 mos. of 1952

	Farm- ing	Min- ing	Con- struc- tion	Manu- factur- ing	Utili- ties	Fi- nance	Whole- sale Trade	Re- tail Trade	Serv- ice Trade	Busi- ness Volume
Ala.	\$ 155 -16%	\$ 66 -5%	\$ 229 +2%	\$1,525 +10%	\$ 236 -2%	\$ 167 +7%	\$ 953 +15%	\$1,095 +19%	\$ 164 -2%	\$4,590 +10%
Ark.	155 -28%	55 -8%	113 -6%	478 +10%	136 +2%	69 +11%	483 +20%	696 +12%	90 -2%	2,275 +7%
D. C.	—	—	134 even	119 +2%	143 +4%	186 +1%	819 +10%	988 +20%	165 even	2,554 +12%
Fla.	322 +6%	38 +8%	491 +24%	716 +18%	321 +2%	299 +18%	1,535 +29%	1,857 +21%	299 +14%	5,878 +20%
Ga.	206 -10%	16 -10%	277 -2%	2,051 +8%	320 +4%	236 +5%	1,433 -15%	1,444 +16%	262 +2%	6,245 +2%
Ky.	289 even	206 -17%	298 +45%	1,593 +12%	258 +1%	131 +12%	1,304 +29%	1,189 +15%	177 +3%	5,445 +16%
La.	122 -6%	399 +2%	370 +45%	1,583 +13%	353 -2%	165 even	1,132 +13%	1,168 +9%	177 +8%	5,469 +11%
Md.	127 even	9 even	338 +2%	2,128 +13%	319 +1%	272 +8%	1,341 +9%	1,376 +9%	217 +1%	6,127 +9%
Miss.	165 even	67 +1%	113 +6%	553 +8%	112 +1%	66 +10%	524 +3%	599 +7%	87 even	2,286 +4%
Mo.	421 -10%	49 -7%	375 +9%	3,277 +15%	576 +4%	451 +4%	4,107 +9%	2,206 +9%	453 +6%	11,915 +9%
N. C.	193 -7%	12 even	411 -10%	3,365 +9%	320 +5%	199 +5%	1,891 +12%	1,573 +11%	248 +5%	8,212 +9%
Okla.	256 -14%	311 +9%	192 even	926 +12%	222 +4%	148 even	978 +11%	1,053 +9%	174 -2%	4,260 +7%
S. C.	96 -15%	6 even	349 +10%	1,433 +8%	123 +1%	92 +15%	590 +12%	875 +13%	114 +6%	3,678 +10%
Tenn.	215 -8%	30 -20%	315 +17%	1,818 +17%	266 +1%	204 +7%	2,076 +11%	1,392 +9%	247 +12%	6,563 +12%
Tex.	693 -17%	1,692 +7%	1,096 +12%	5,443 +10%	1,018 +3%	750 +9%	4,878 +16%	4,755 +14%	806 +11%	21,131 +11%
Va.	211 even	63 -17%	358 even	2,283 +10%	373 +1%	252 +13%	1,242 +19%	1,516 +11%	229 +3%	6,527 +10%
W. Va.	76 even	435 -11%	89 -10%	920 +6%	230 even	85 +11%	558 +17%	746 even	114 +3%	3,253 +3%
South	3,702 -10%	3,454 even	5,548 +9%	30,211 +11%	5,326 +2%	3,772 +7%	25,844 +11%	24,528 +12%	4,023 +5%	106,408 +10%





Many industries of various types have found that Alabama—geographically the center of a large market area—is the ideal location for plants, branch offices and warehouses. Besides such physical necessities as satisfactory sites, unfailing water supply, transportation, adequate help and raw materials, Alabama offers another essential ingredient to new industries—a *cordial and sincere bandclasp of welcome*.

Your inquiry, addressed to our Industrial Development Division, will bring you facts (in confidence) regarding communities well adapted to your type of manufacturing operations.



Alabama Power Company

Birmingham 2, Alabama

NEW AND EXPANDING PLANTS

COMPILED FROM REPORTS PUBLISHED IN THE DAILY CONSTRUCTION BULLETIN

ALABAMA

BIRMINGHAM—Edwards Motor Co. let contract to C. F. Hooks for shop addition, 1425 Fourth Ave. Warren Knight & Davis, Archts.

DECATUR—Coca Cola Bottling Co. received bid from Ray Childs, for \$150,000 bottling plant. Horace M. Weaver & Co., Decatur, Archts.

GORGAS—Alabama Power Co. received bids for \$2,000,000 power plant.

LINDEN—City plans \$100,000 textile plant. Charles A. McCauley, Jackson Bldg., Birmingham, Ala. Archt.

MONTGOMERY—Montgomery City Lines, Inc., 502 N. Court St., received bid from Bear Brothers, for \$104,465 office and garage building. Sherlock Smith & Adams, 303 Washington Ave., Archts.

OPELIKA—Opelika Manufacturing Corp. received bids for office and warehouse. Robert & Co. Associates, 96 Poplar St., N. W., Atlanta, Ga., Archts.

SHAWMUT—West Point Manufacturing Co. let contract to Bates-Cook Co., West Point, for community center and swimming pool. Charles M. Graves, 795 Peachtree St., N. E., Atlanta, Ga., Archt.

SILURIA—Buck Creek Cotton Mill Co., J. T. Phillips, let contract to Marbury-Pattillo Construction Co., Birmingham, to restore Buck Creek area.

TUSCALOOSA—B. F. Goodrich Co. plans \$4,500,000 expansion to tire and tube manufacturing plant.

WOODWARD—Koppers Co., Inc., Pittsburgh, Pa., will receive bids for plant office. John W. Thomas, 600 N. 10th St., Birmingham, Archt.

ARKANSAS

ARKANSAS—Arkansas Power & Light Co. plans four micro-wave transmission towers at Pine Bluff, Star City, Sumpter and Huttig as part of private radio communications system being installed by A. P. & L. Mississippi Power & Light Co., Louisiana P. & L. Co. and New Orleans Public Service Co.

CROSSETT—Crossett Lumber Co. plans \$20,000,000 paper mill.

HEBER SPRINGS—Glove Corp., Alexandria, Indiana, proposes plant.

JONESBORO—General Electric Co., Schenectady, New York, received bids for specialty motors plant. Frank T. Tobey, Jr., Archt.

TEXARKANA—KCMC-TV, Texarkana Television Station, plans erection of transmission tower.

WEST MEMPHIS—Ben Klinker Motor Co., let contract to Wallin, Dickey & Rick for building. Estes W. Mann, & William Mann, Associate, Archts.

FLORIDA

FLORIDA—Eddie Dowling & Associates plan a mile-square reproduction of Holy Land, complete with camels, street bazaars and ancient buildings and terrain; cost \$2,000,000.

CHATTAHOOCHEE—Florida State Improvement Commission, Caldwell Building, plans \$1,237,400 boiler and electrical distribution system at State Hospital. Reynolds, Smith & Hills, 227 Park Street, Jacksonville, Archt.

CLERMONT—Robert B. Murphy, Archt., Church and Main Sts., Orlando, plans service station.

DADE COUNTY—Dawal Farms, Inc., let contract to B. A. Roemer Construction Co., Box 131, Belle Glade, for \$97,944 addition to vegetable pre-cooling plant, N. side of Plumer Drive.

DADE COUNTY—Dressels Dairy Farm, 3500 N. W. 72nd Ave., Miami, plans \$33,530 addition to dairy.

DADE COUNTY—Eastern Airlines, Inc., Miami, let contract to Hill York Corp., 1221 S. W. 8th St., Miami, for air conditioning Old Maintenance Bldg. (36th St. Airport).

DADE COUNTY—Florida Power & Light Co. let contract to Robert L. Turchin, Inc., 1835 Purdy Ave., for sub-station.

DADE COUNTY—Florida Power & Light Co., F. G. Bouton, Purchasing Agent, let contract to R. Harrison Construction Corp., 5137 N. E. 2nd Ave., for chemical and service building, Culter, Fla.

DADE COUNTY—Orange State Oil Co., H. N. Glover, Mgr., 368 N. E. 58th Terrace, Miami, let contract to Rives Construction

Co., 2450 N. W. 54th St., Miami, for \$21,504 service station, 1655 N. W. 95th St. M. M. Vaviloff, 2171 S. W. 25th St., Miami, Archt.

FORT LAUDERDALE—American Brewing Co., 644 S. W. Flager Drive, let contract to Wilbur L. Kroetz, 534 N. E. 6th Ave., for \$15,500 addition to warehouse.

JACKSONVILLE—City Commission received bids for expansion work at South-side Generating Station; part of City Electric system's \$18,000,000 expansion program.

HALEAH—Dade Packing Co. to remodel building at 2700 W. Third St.

HALEAH—Florida Frozen Food Processors will receive bids for shrimp packing plant, 5500 block N. W. 37th Ave.

HALEAH—Orange State Oil Co. let contract to St. John Company, 295 N. E. 61st St., Miami, for \$38,700 service station and garage, 3710 N. W. 54th St. M. M. Vaviloff, 2171 S. W. 25th St., Miami, Archt.

HALEAH—Universal Car Loading & Distributors Co., 1200 Seaboard Drive, received bid from Dobbs Construction Co., 2774 N. W. 24th St., Miami, for \$102,830 warehouse addition.

LAKELAND—Atlantic Coast Line plans extension of its freight yard at Winston, near Lakeland.

MIAMI—Ace Warehouse, Inc., let contract to Dobbs Construction Co., 2774 N. W. 24th St., for warehouse and office.

New and Expanding Plants Reported in August

161

Total for

First Seven Months of 1953

1294

First Seven Months of 1952

1434

MIAMI—Atlantic Refining Co., 339 S. E. 24th St., Fort Lauderdale, let contract to Duffey Construction Co., Inc., 1395 N. W. 21st St., for service station, 444 N. W. 27th Ave.

MIAMI—Board of Public Instruction received bids for electrical supplies.

MIAMI—S. S. Pinnac Co. let contract to Duffey Construction Co., 1395 N. W. 21st St., for warehouse, N. W. 17th Ave. & 16th St.

PANAMA CITY—James Gamble Rogers, II, Architect, plans television station to cost approx. \$30,000.

PENSACOLA—James Gamble Rogers, II, Architect, Winter Park, plans radio and television station "WEAR" to cost approx. \$30,000.

TAMPA—Tampa Electric Co. purchased \$107,000 tract of land at Black Point on Hillsborough Bay for additional plant facilities.

WINTER GARDEN—Continental Can Co., Fred West, Manager, let contract to Paul Smith Construction Co., Tampa, for \$500,000 plant.

GEORGIA

ATLANTA—Firestone Tire & Rubber Co., 430 Lindbergh Drive, N. E., received bids for building.

ATLANTA—Westinghouse Electric Corporation, P. O. Box 2278, Pittsburgh, Pa., W. S. Riser, Agent, Purchasing Agent Headquarters, received bids for new M & R shop building. Robert & Co. Associates, 96 Poplar St., N. W., Archts-Engrs.

CLEVELAND—Ames Textile Corp., Lowell, Mass., let contract to Potter-Shackelford Construction Co., Greenville, for \$454,000 building. McPherson Co., Greenville, S. C., Archt-Engr.

CLEVELAND—Whittier Mills Co., Chattahoochee, let contract to Potter-Shackelford Construction Co., Box 1018, Greenville, S. C., for \$454,000 textile plant for Ames Textile Co. McPherson Co., Greenville, S. C., Archts-Engrs.

DALTON—Coca Cola Bottling Co. received bid of \$132,838 from Collins & Hobbs, Inc., 4013 Tennessee Ave., Chattanooga, Tenn., for bottling plant. Poundhouse & Ayers & Godwin, Atlanta, Archts.

GAINESVILLE—J. D. Jewell, Inc., plans 9-story feed mill and storage warehouse; cost \$300,000.

JASPER—Stalwart Rubber Co. of Bedford, Ohio, purchased Jasper Rubber Co. for \$500,000.

MACON—American Telephone & Telegraph Co. plans extension of network television service, and addition to station WETV.

MACON—Bibb Grocery Co. received bid from H. G. Tinker for warehouse and office building. N. J. Pasculli, Archts.

MACON—Dixie Dairies, John Sancken, received bids for ice cream and milk processing plant. Kuhlke & Wade, 16 Campbell Bldg., Augusta, Archts.

LOUISIANA

LOUISIANA—American Natural Gas Company formed American Louisiana Pipe Line Co. Plans new pipeline for carrying natural gas from Louisiana Gulf Coast field to Midwest markets.

ALEXANDRIA—Brown Roberts Hardware & Supply Co., 1810 Third St., let contract to Gravier & Harper, P. O. Box 1391, for \$30,737 warehouse building. Charles T. Roberts, Guaranty Bank Bldg., Archt.

ALEXANDRIA—Continental Oil Co., P. O. Box 2197, Houston, Tex., received bids for new service station building at Bolton Ave. at Monroe St.

ALEXANDRIA—Firestone Tire & Rubber Co. received bids for service store building, Bolton Ave. and Magnolia St.

ARNAUDVILLE—Village of Arnaudville let contract to Burnett & Lambert, P. O. Box 386, Denham Springs, for \$179,000 gas station.

BOUCE—Town will receive bids for construction of natural gas system.

COLFAX—Mayor let contract at \$165,528 to Hyde Construction Co., P. O. Box 385, Jackson, Miss., for municipal gas system.

GLENMORA AND OAKDALE—Mayor received bids for repair and installation of gas transmission line between Oakdale and Glenmora.

LAKE CHARLES—Continental Oil Co., c/o Hal F. Nabors, Southern Regional Production Manager, Houston, Tex., let contract to Hudson Engineering Corporation, 2711 Danville, Houston, Tex., for \$1,500,000 expansion program at Continental Oil Co. Gillis natural gasoline plant.

MONROE—Olin Industries, Inc., East Alton, acquired control of Interstate Natural Gas Co., Monroe, at \$42,000,000.

NEW ORLEANS—Bowen Packers, Inc., 911 Poydras St., asking bids for alterations to existing meat packing building. Patrick M. Allison & Associates, 315 St. Charles St., Archts-Engrs.

NEW ORLEANS—Lone Star Cement Corporation, 812 Gravier St., received bids for slurry tank and timber piling, and installation of machinery.

NEW ORLEANS—Standard Brass let contract to Hogan Brothers, Inc., 236 Focis St., for warehouse addition, 931 S. Clark St., Patrick M. Allison & Associates, 315 St. Charles St., Archts-Engrs.

NORCO—Shell Chemical Corporation, Richard C. McCurdy, Pres., plans erecting new plant.

RAYNE—Board of Aldermen will receive bids for additions and alterations to power plant switchboard.

RUSTON—Mayor received bid of \$487,939 from Nordberg Manufacturing Co., Milwaukee, Wisc., for diesel generating unit.

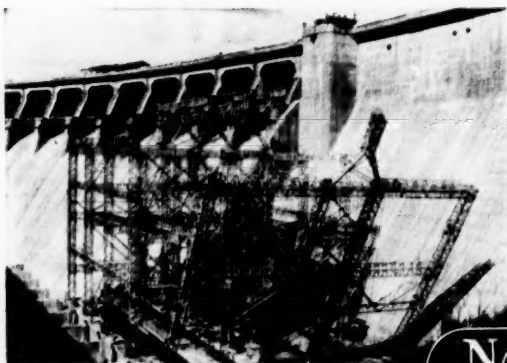
ST. HELENA PARISH—St. Helena Parish Police Jury received bids for natural gas transmission line and distribution system.

SHREVEPORT—William M. Barrett, Inc., let contract to Guy C. Whitaker, 200 Shelby Bldg., at \$112,000 for office, shop and garage building, 1431 Dalzell St. Neild-Somdal Associates, Archts.

MARYLAND

MARYLAND—The Chesapeake & Potomac Telephone Co., Baltimore, sold \$15,000,000 bond issue to Halsey, Stuart & Co., Inc. for extensions, additions and improvements throughout state.

(Continued on page 14)



THE Nashville Bridge Company will gladly quote on structural steel requirements anywhere in the South and Southwest. Our skill in the fabrication and erection of intricate steel structures is well-known. We are particularly qualified to supply the Power Distributing Industries with transmission towers and switchyard structures.—hot-dip galvanized after fabrication. Fabrication and erection of both steel and machinery for movable type bridges is a specialty. Look to Nashville for simple steel requirements as well as intricate structural jobs.

Plants and offices in Nashville, Tennessee and Bessemer, Alabama. We also own and operate the Bessemer Galvanizing Works—largest galvanizing plant in the South.

NASHVILLE BRIDGE COMPANY
NASHVILLE, TENN. — BESSEMER, ALA.



NEW AND EXPANDING PLANTS

(Continued from page 13)

ANNE ARUNDEL COUNTY—American Oil Co. considering Marley Neck area as site for multi-million dollar refinery.

BALTIMORE—Dixie Manufacturing Co., 1310 Russell St., received bids for office and factory building, Patapsco Ave. & Washington-Baltimore Expressway. Lucius R. White, Jr., 1009 N. Calvert St., Archt.

BALTIMORE—Esso Standard Oil Co., Standard Oil Bldg., plans \$30,000 service station, 550-4 Reisterstown Road.

BALTIMORE—Flynn & Emrich Co., 301 Holliday St., let contract to Kirby & McGuire, Inc., 2518 Greenmount Ave., for machine assembly plant, Grantley Ave.

BALTIMORE—Hartol Petroleum Corp., Munsey Bldg., let contract to Kirby & McGuire, Inc., 2518 Greenmount Ave., at \$12,000 for addition and alteration to building, 3441 Fairfield Road.

BALTIMORE—Koppers Co., Inc., 200 Scott St., let contract to Morrow Brothers, 2315 N. Charles St., for \$96,000 laboratory and office building, 1520 Wicomico St. Lawrence A. Menefee, 347 N. Charles St., Archt.

BALTIMORE—Earle Lipchin Co. received bids for office building, 210 N. Calvert St. Hal A. Miller, Archt.

BALTIMORE—Maryland Refrigerator Co., 706 N. Howard St., let contract to Anchor Construction Co. for \$55,000 office and warehouse, 720 N. Pulaski St.

BALTIMORE—Procter & Gamble Co., Haubert & Nicholson Sts., plan \$75,000 warehouse, Haubert & Beason Sts.

BALTIMORE—WBAL, 2610 N. Charles St., received bids for transmitter building addition on Violet Ave. William F. Stone, Jr., 2612 N. Charles St., Archt.

BALTIMORE—York-Hoover Corporation let contract to Millison Construction Co., Inc., 217 W. Monument St., for building, 107 E. 25th St. Fenhagen, Meyer & Ayres, Federal Land Bank Bldg., Archts.

MISSISSIPPI

MISSISSIPPI—Southern Natural Gas Co. to construct pipe line from Pickens to Louisville, via Kosciusko.

BATESVILLE—Mayor and Board of Aldermen, Dan L. Ferguson, Mayor, received bids

for new addition to factory building of The Batesville Company, Pritchard & Nickles, Tunica, Archts.-Engrs.

HOLLY SPRINGS—Erie Resistor Corporation let contract to G. F. Bass & Co., Jackson, for plant building. John E. Turner, Jackson, Miss., Archt.

TISHOMINGO—Board of Supervisors received bid of \$87,478 from Kimberly Brothers, Iuka, for factory building.

JACKSON—Gordon Transport, Inc., let contract to Southeastern Construction Co., for \$104,932 terminal building, N. W. Overstreet & Assocs., 201 N. Lamar St., Archts.

JACKSON—Shell Oil Co. let contract to Scarborough & Hanlines Construction Co., P. O. Box 6144 Parkway Station, for modernization of Shell service station at West Capitol and Claiborne Sts.

MONTICELLO—Board of Supervisors of Lawrence County received bid of \$213,000 from R. H. Price, Route 1, for new Phalo Corporation plant building, Spain & Biggers, Archts., Deposit Guaranty Bank Bldg., Jackson.

SENATOBIA—Mayor & Board of Aldermen received bids for industrial plant building for Wm. Carter Co.; est. cost \$320,000. Robert B. McKnight, P. O. Box 6, Tupelo, Ala. Archt.

MISSOURI

MISSOURI—Union Electric Co. acquired Missouri Edison Co.

MISSOURI—Union Electric Co. of Missouri placed in operation second of two new generating units at Osage Hydro plant at Bagnell Dam, 130 miles S. W. of St. Louis.

CENTRALIA—A. B. Chance Co., N. A. Tolson, Gen. Mgr., let contract to B. D. Simon Construction Co., 802 Broadway, Columbia, for foundry building.

INDEPENDENCE—Council proposes issuance of \$3,000,000 revenue bonds (at special election October 6), for long term expansion program and municipal light plant.

ST. LOUIS—Keeler-Morris Printing Co., 1602 Locust St., let contract to William M. & Nelson Cunliff Co., 3320 Lindell, for printing plant and office, 2166 Hampton Ave. Fred S. McNeill, 3320 Lindell Blvd., Archt.

ST. LOUIS—National Tea Company plans ten new food stores at \$3,500,000.

NORTH CAROLINA

CHARLOTTE—The Glidden Co., C. A. Metts, Mgr., let contract to Southeastern Construction Co., 301 W. 2nd St., for \$50,000 one-story building, S. W. cor. of intersection Independence Blvd. and Alexander St. James A. Malcolm, Archt.

CHARLOTTE—Standard Chemical Products, Inc., Hoboken, N. J., let contract to J. A. Jones Construction Co., 209 W. Fourth St., for building, H. K. Ferguson Co., Cleveland, Ohio, Archts.-Engrs.

CHAMBERTON—Burlington Mills Corporation let contract to E. R. Morgan, Gastonia, for \$145,678 warehouse and weave room expansion, Mayflower plant.

ENKA—American Enka Corporation has certificate of necessity for plant to manufacture nylon yarn.

FORSYTH COUNTY—Old Town Telephone System, Inc., Reynolds Road, Winston-Salem, let contract to Rockingham Construction Co., Harrisonburg, Va., for \$279,213 Rural Telephone Project No-502-A.

HIGH POINT—The Deluxe Saw & Tool Co., subsid. of Rockwell Manufacturing Co., Pittsburgh, Pa., adding new machinery and equipment following transfer of headquarters from Chicago, Ill. and Columbus, Ohio.

LEXINGTON—Manhattan Shirt Corp. let contract to G. L. Wilson Bldg. Co., Statesville, for building, Sam Worth Hughes, Paramus, N. J., Archt.

MEBANE—Mebane Home Telephone Co. has REA loan of \$605,000 to improve and expand service in Alamance and Orange Counties.

WILMINGTON—Seacoast Air Line Railroad plans \$380,000 storage warehouse.

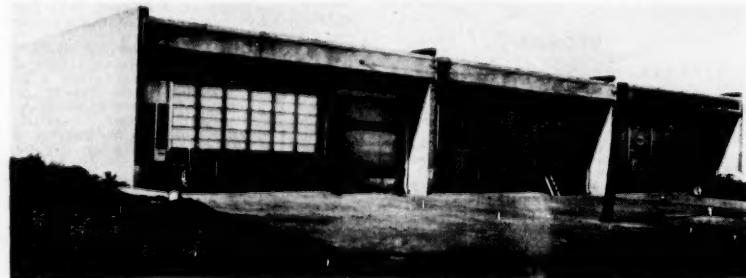
WINSTON-SALEM—Krispy-Kreme Doughnut Co. let contract to Frank L. Blum & Co., 860 W. 4½ St., for \$166,215 addition to factory and office, Ivy Street Plant, Lashmit, James, Brown & Pollock, 602 Reynolds Bldg., Archts.

OKLAHOMA

BARTLESVILLE—Phillips Petroleum Co., plans new platformer unit at Sweeney Re-

(Continued on page 61)

TRINITY INDUSTRIAL DISTRICT



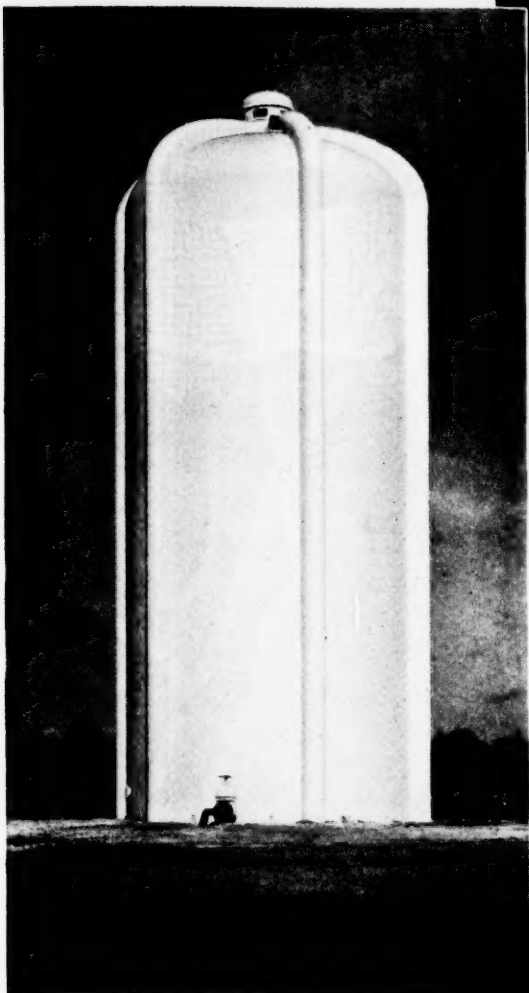
The photo shows a new building being completed by Trammell Crow, to be occupied by the General Detroit Corporation, the Jarvis Press and William Wallace, Supplier.

For information about the Trinity Industrial District consult your real estate broker or . . .

INDUSTRIAL PROPERTIES CORPORATION, 401 Republic Bank Bldg., Dallas, RI-6552

New **HORTON**

Standpipe Increases Minimum Water Pressure 100 Per Cent at Clearwater, Fla.



A 1,000,000-gal. Horton standpipe erected for municipal water service at Clearwater, Fla. The standpipe is 43-ft. in diam., 95-ft. to the high water line and 110-ft. high overall.

A new 1,000,000-gal. Horton* standpipe helped increase minimum water pressure 100 per cent in the municipal water system at Clearwater, Fla. The city covers an area of 15.3 sq. mi. and has a permanent population of 25,000. In the winter time, tourists and winter residents increase this figure to about 40,000 people. Prior to the installation of the standpipe, distribution pressures dropped as low as 10 lbs. per sq. in. Minimum pressure is now 20 lbs. per sq. in.—even during the busiest tourist season.

CB&I Field Welding Supervision Service

Every welded structure built by Chicago Bridge & Iron Company has a Field Welding Supervisor assigned to follow its construction. To assure you the best in workmanship and construction, he oversees the cutting and grading of plugs, helps to x-ray, magnaflux or stress-relieve welds and checks welding equipment, welders techniques . . . on *all* tanks at *no extra cost* to you!

Horton standpipes are built in standard capacities up to 10,000,000 gallons. Horton elevated water tanks are built in sizes from 5,000 to 3,000,000 gallons. Write our nearest office for estimates or quotations.

**Trade Mark Registered in U. S. Patent Office*



CHICAGO BRIDGE & IRON COMPANY

Atlanta 32145 Healey Bldg.
Birmingham 11530 North Fifth St.
Boston 101020—201 Devonshire St.
Chicago 42106 McCormick Bldg.
Cleveland 152216 Midland Bldg.

Detroit 261510 Lafayette Bldg.
Havana402 Abreu Bldg.
Houston 22114 C & I Life Bldg.
Los Angeles 171517 General Petroleum Bldg.
New York 63313—165 Broadway Bldg.

Philadelphia 31619—1700 Walnut Street Bldg.
Pittsburgh 193223 Alcoa Bldg.
San Francisco 41540—200 Bush St.
Seattle 11320 Henry Bldg.
Tulsa 31611 Hunt Bldg.

PLANTS IN BIRMINGHAM, CHICAGO, SALT LAKE CITY AND GREENVILLE, PENNSYLVANIA

SOUTHERN FIBERS

CLOTHE THE NATION!

The next time milady steps into a store, the chances are that the clothes she buys—lingerie, hosiery, dresses for herself, blue jeans for the teen-agers, and socks and shirts for her husband—are made of fabrics processed in the South.

For textile manufacturing, ranging from cottons to woolens and the modern synthetics such as rayon and nylon, is one of the South's largest industries. Today, Southern textiles employ over a half million people who produce approximately five billion dollars worth of goods every year.

The development of new synthetics has led to an even broader diversification of textile products. The result is a continuing increase in the buying power and financial resources of this rapidly growing region which is attracting nationwide attention through its sound industrial and agricultural progress.



This is "SOUTHERN CITY," U.S.A., our way of expressing as a unit the vast Southeast area served by the four associated electric power companies in The Southern Company system.

Write the industrial development departments of any of the four operating companies for further information.

ALABAMA POWER COMPANY, Birmingham, Alabama
GEORGIA POWER COMPANY, Atlanta, Georgia
GULF POWER COMPANY, Pensacola, Florida
MISSISSIPPI POWER COMPANY, Gulfport, Mississippi

★ ★ ★
THE SOUTHERN COMPANY, Birmingham • Atlanta

oil goes to a psychiatrist

EVEN OIL NEEDS a psychiatrist these days. Think that sounds farfetched? It is bare-boned fact.

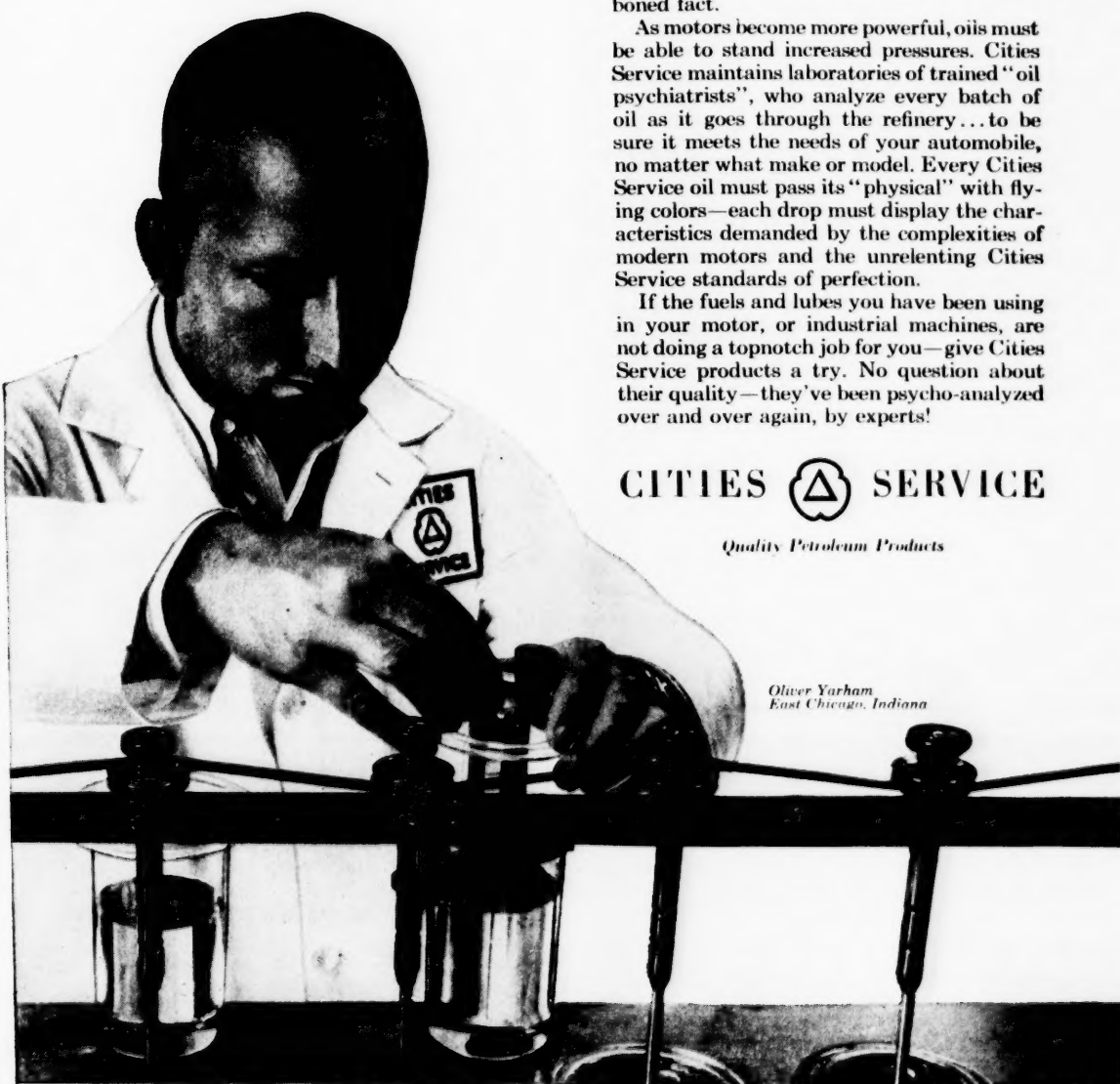
As motors become more powerful, oils must be able to stand increased pressures. Cities Service maintains laboratories of trained "oil psychiatrists", who analyze every batch of oil as it goes through the refinery...to be sure it meets the needs of your automobile, no matter what make or model. Every Cities Service oil must pass its "physical" with flying colors—each drop must display the characteristics demanded by the complexities of modern motors and the unrelenting Cities Service standards of perfection.

If the fuels and lubes you have been using in your motor, or industrial machines, are not doing a topnotch job for you—give Cities Service products a try. No question about their quality—they've been psycho-analyzed over and over again, by experts!

CITIES  SERVICE

Quality Petroleum Products

*Oliver Yarham
East Chicago, Indiana*



LITTLE GRAINS OF SAND

*"Little drops of water, little grains of sand,
Make the mighty ocean, and the pleasant land."*

To What Purpose? Why should the United States want to spend tax money or incur a debt for the St. Lawrence Seaway that would be largely used only by foreign owned vessels; that would be ice-bound for about five months out of twelve; that would put cheap foreign labor in competition with well paid American labor; that would build up the port of Montreal in competition with American ports; that would tend to weaken the railroads, one of our strong arms of national defense; and, lastly, that would make necessary the defense of another channel of commerce in time of war, to some extent at least comparable to the defense of the Panama Canal and the Soo? We have in this country the cheapest transportation available anywhere in the world. No part of this great nation is being restricted in its development for lack of it. For proof of that, we need witness only the extraordinary growth of industry in the Middle West, the South, and the South West.

Loans to Small Business. An overwhelming majority of small businessmen and an overwhelming majority of big businessmen are opposed to Government lending in the commercial field in any form, the reason for this being that only a fraction of one per cent of the small businessmen benefit from Government lending; the remaining ninety-nine plus per cent of small businessmen pay the taxes that provide the capital which is used by the few small businessmen who are recipients of Government loans and who, in too many cases, seek Government loans because they do not have the character and capacity which entitles them to the credit they need.

Unfair Exemption. Tax-exemption of private profit-making cooperatives and governmental power projects was not too serious when federal tax rates on corporate incomes were only 1 per cent (as in 1913) or even 12 to 25 per cent (as in the 1920s). But when they rose to 38 per cent in the New Deal prewar era, and to 52

per cent at present, with a graduated "excess profits" tax which has raised the over-all rate in many cases to 82 per cent of net income, tax-exemption of public power projects means certain destruction of all tax-paying competitors. Though cooperatives doubtless have a proper place in rural electrification, even when and where they compete with existing private tax-paying power companies, it is hard to find any justification for tax-exemption of their profit-making operations.

On the Right Track. By reversing the trend toward socialism the Eisenhower administration has not only begun to return to private enterprise activities rightfully theirs, but has begun to effect economies in these same areas. For example, the administration has reduced the amounts requested by the Southeastern Power Administration and the Southwestern Power Administration for transmission facilities, arguing that public facilities should be utilized only when private enterprise cannot or will not provide adequate facilities themselves at reasonable rates. Similarly, additional funds for the Tennessee Valley Authority have been denied for the expansion of new steam plants. Also, in the field of Federal controls, rent, wage, and materiel allocation controls have been reduced, all of which will show reductions in present and future

One quality of a good executive is
to be able to appear to subordinate
his own preferences in order to stimulate the best efforts of his associates.

costs.

No Cause for Alarm. There are unmistakable signs that a change is taking place in the labor market. In recent months the work week in industry has shown a tendency to shrink. In June, the latest date for which figures are available, the average factory worker put in 40.7 hours on the job, a drop from the March peak of 41.1 hours. Overtime seems to be on the way out, particularly for the less skilled.

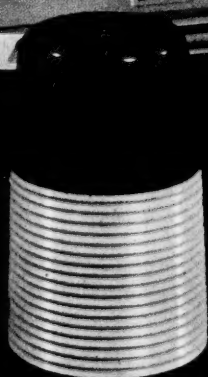
The Labor Department recently reported the first
(Continued on page 22)



SOUTHERN
ATHLETIC



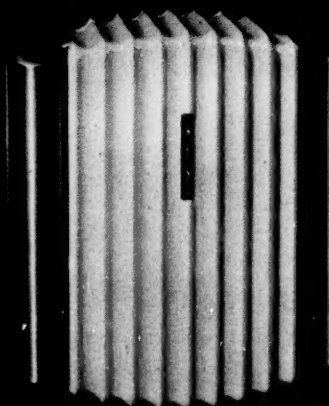
SERVEL



ALADDIN

"Farming" is our business!

Companies demanding the best in the molding and decoration of plastics "farm out" their jobs to KUSAN, specialists in custom molding. So instead of cotton and corn, our crops are refrigerator parts, vacuum bottles, football helmets, chime covers, and innumerable other items for home, office and factory. The unlimited color range, economy and versatile properties of the thermoplastics add up to better products for today's more enjoyable living. KUSAN is well equipped to serve you efficiently from plants in Nashville, Tennessee and Henderson, Kentucky. Call KUSAN on your next plastic job or when you'd like to compare plastics with other materials for your product.



NUTONE

KUSAN, INC.

2716 FRANKLIN ROAD, NASHVILLE, TENNESSEE



YOUNGSTOWN

Cold Finished
**CARBON AND ALLOY
STEEL BARS**

Uniformly satisfactory
in service because—

Machinability is
outstanding

Tolerances are
uniformly close

Metallurgical character-
istics are rigidly
controlled



OF PRODUCING STEEL

● Here's why the bars you get from Youngstown will meet your exact requirements. They're drawn from steel produced by an organization that's been making and rolling highest quality steel for 50 years.

Youngstown Cold Finished Carbon and Alloy Steel Bars are furnished in standard shapes and sizes, in both coils and straight lengths. For further information, phone or write our nearest District Sales Office.



THE YOUNGSTOWN SHEET AND TUBE COMPANY

General Offices: Youngstown, Ohio - Export Office: 500 Fifth Avenue, New York 36, N. Y.

PIPE AND TUBULAR PRODUCTS - CONDUIT - BARS - RODS - COLD FINISHED CARBON AND ALLOY BARS - SHEETS - PLATES - WIRE - ELECTROLYTIC TIN PLATE - COKE TIN PLATE - RAILROAD TRACK SPIKES

*Manufacturers of
Carbon, Alloy and Tool Steel*

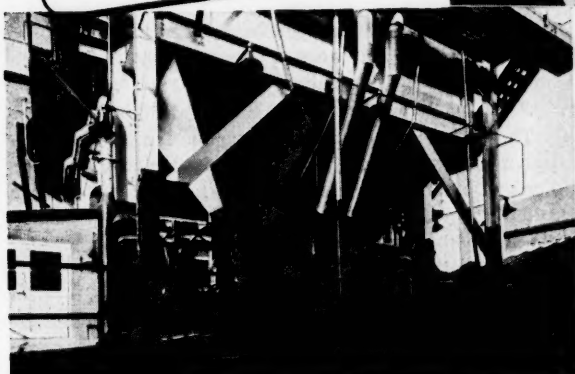
**"We modernized our plant,
installed new COAL-burning equipment,
AND CUT OUR FUEL COSTS 45%!"**

**"In Addition, Automatic Coal-
and Ash-Handling Equipment
Cuts Labor Costs 60%!"**

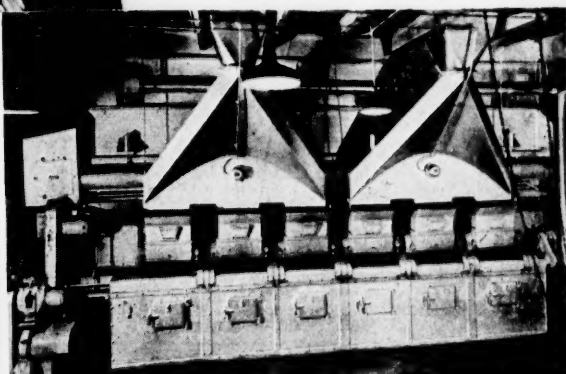


says MR. A. J. GOETZ, Executive Vice President,
River Raisin Paper Co., Monroe, Michigan.

"We recently modernized our entire plant following an extensive engineering survey. New coal-burning and coal-handling equipment was installed . . . heat losses were reduced . . . efficiency raised. As a result, our fuel costs have been cut 45 to 50%—proving to us that you just can't beat bituminous coal burned the modern way."



This view shows how River Raisin has installed its modern fly-ash reinjection system at the rear of the boilers but outside the plant. The plant also features outdoor coal handling to save additional interior space.



"We chose these modern spreader stokers for their advantages of low maintenance, low power requirements, and their ability to meet fairly rapid load changes. They give us maximum efficiency under all operating conditions."

Modernizing your present plant? Building a new one? In either case let a consulting engineer show you exactly how you can meet your *specific* needs with a modern coal installation—and at the same time save more money than you thought possible.

Automatic coal- and ash-handling equipment can cut your labor costs to a minimum. And, today, with a modern combustion installation, you can actually get 10 to 40% more power from each ton of coal than was possible a few years ago.

Moreover, with coal you'll never have to worry about a shortage of fuel. America's coal reserves are virtually inexhaustible, and this coal is mined by one of America's most efficient and productive industries. This means that coal users—unlike those committed to other fuels—get the advantage of dependable future supply as well as more stable prices.

**If you operate a steam plant,
you can't afford to ignore these facts!**

- COAL in most places is today's lowest-cost fuel.
- COAL resources in America are adequate for all needs—for hundreds of years to come.
- COAL production in the U. S. A. is highly mechanized and by far the most efficient in the world.
- COAL prices will therefore remain the most stable of all fuels.
- COAL is the safest fuel to store and use.
- COAL is the fuel that industry counts on more and more—for with modern combustion and handling equipment, the inherent advantages of well-prepared coal not even bigger savings.

BITUMINOUS COAL INSTITUTE

A Department of National Coal Association, Washington, D. C.

FOR HIGH EFFICIENCY • FOR LOW COST
YOU CAN COUNT ON COAL!

Provides the last word in property control . . .

- American retrospective appraisals establish unit property records with individual costs, depreciation reserves and provisions — Kept up to date, they are the last word in property control.

The **AMERICAN APPRAISAL** Company



Over Fifty Years of Service

OFFICES IN PRINCIPAL CITIES



Each Tri-Lok step consists of a panel of Rectangular, Diagonal, or U-type Tri-Lok flooring in any desired width, length, depth, and bar spacing.

SAFE — checker plate nosing bars make each step stand out clearly. Abrasive edging also available.

CLEAN — clogless, rivetless Tri-Lok joint prevents accumulation of dirt, moisture, rust.

STRONG — added strength provided at maximum load contact by shape and rigidity of nosing bar.

Write today for bulletin NU-1103

DRAVO CORPORATION

National Distributor for the Tri-Lok Company
Dravo Building, Pittsburgh 22, Pennsylvania
Sales Representatives in Principal Cities



LITTLE GRAINS OF SAND

(Continued from page 18)

shift in 18 months toward a more plentiful supply of workers in several major employment centers, including Washington, D. C.; the Aiken-Augusta area of South Carolina and Georgia; Paducah, Kentucky; and several cities in Florida. The reason for the shift varied in each case.

An end to the current scarcity of labor, if it comes, should not be taken to mean that a recession is around the corner; but it will mean that the job market, like most others, is getting back to normal.

Luxuries? Many federal excise taxes have been defended on the basis that they are levies on luxuries. But what some are pleased to call luxuries are simply the pluses of life which people work harder to secure. The fact is that if it were not for the tremendous consumption in these so-called luxuries, even the necessities of life would be harder for our people to obtain.

The difference between full production and full employment on the one hand, and closed plants and millions of unemployed on the other, lies in production and distribution of the vast numbers of products which the families of America can do without and still maintain a healthy existence.

Misleading. Phillip Murray was correct when he said that "the development of the American economy stands as testimony to the fact that increasing output per man-hour (productivity) should enable business to raise wages, reduce prices and operate profitably."

The late Henry Ford could not have put this better, but there is a difference between the two. Henry Ford lived by this maxim. Phillip Murray did not, and we are inclined to believe that his followers likewise have no intention of living by this yardstick. It is all too clear by now, that organized labor wants more than its share of increased productivity. It wants to pre-empt the pot, leaving little for a reduction in prices and nothing for the maintenance of adequate profits. Unionized labor, in other words, wants to have its cake and eat it too.

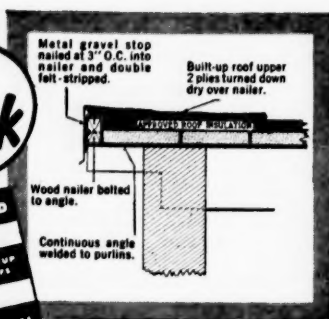
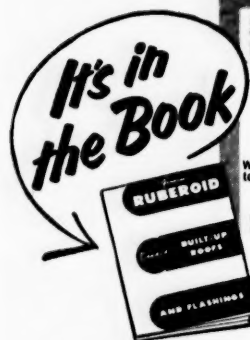
Labor Leaders' Opportunity. Increases in money wages during a boom can be passed along to the consumer in higher prices, and so do not lead to a curtailment of output and sales. But higher money wages in a contracting economy can have disastrous results. In the effort to pass along higher wages, prices will have to be raised and sales curtailed. Where higher costs cannot be passed on, which is frequently the case in a recession, output will be curtailed in any event because manufacturers cannot long continue to sell at a loss. Whether higher wages reduce sales or cause close-downs to avoid deficits, the effect is equally bad for labor. They result in shorter working hours and growing unemployment.

Labor has achieved great gains during the past decade. Labor can look forward to making further gains in

(Continued on page 24)

ANOTHER NEW YARD—The area within the broken lines is the site on which is being built Southern Railway's \$14 million car retarder yard at Chattanooga, Tenn. Our present Citico Yard, in the foreground, will be integrated into the new and larger yard. Work is now in full swing on this new facility and when completed in about 18 months from now, it will be comparable to our ultra-modern yards at Knoxville and Birmingham. From yards such as these come faster, safer movement of freight traffic when routed via the railway that "Serves the South." **SOUTHERN RAILWAY SYSTEM**





The answer to all your roofing maintenance problems is in Ruberoid's Built-Up Roofing Specification Book. There's a complete specification with detail drawings, like the one above, to meet every condition—Smooth Surfaced Asbestos, Coal Tar Pitch or Special Bitumen with gravel or slag surfacing, and smooth or gravel-and-slag surfaced asphalt.

Because Ruberoid makes *every* type of built-up roof, Ruberoid roofers are not prejudiced in favor of any one type. Because Ruberoid has been a leader in the field for 60 years, you can depend on the right materials and the right specification through Ruberoid Approved Roofers.

Give your roof a thorough check-up now, and write for Ruberoid's free Built-Up Roofing Specification Book. The Ruberoid Co., 500 Fifth Avenue, New York 36, N. Y.

The RUBEROID Co.

ASPHALT AND ASBESTOS BUILDING MATERIALS

CREOSOTED

**Piling, Poles, Lumber, Cross Arms,
Cross Ties**

Also Penta- and Salt-Treated Lumber

Decay and Termite Proof

Docks for Ocean Vessels



American Creosote Works, Inc.

New Orleans, La.

Plants at New Orleans; Winfield, La.; Louisville, Miss.;
Jackson, Tenn.

LITTLE GRAINS OF SAND

(Continued from page 22)

real wages in the future. But in the difficult period of adjustment that will intervene while the economy learns to be less dependent upon Government spending, labor will have to give up the illusion that money wage rates and fringe benefits can be increased year after year regardless of the state of the economy.


School Boards Attention! The Brookings Institution made A Survey of Economic Education in this country and found that only about 25 per cent of the college students enroll in economic courses, and less than 5 per cent of students who graduate from secondary schools have taken any course in economics. On the other hand, about one half of all high school students are enrolled in social study classes. The Brookings' report went on to say that "... the social science texts, which contain a smattering of economics—commonly written by individuals without training in this field—provide very poor substitutes." The New York Times, in commenting on a survey made by a leading economist of 600 social-science text-books, or 90 per cent of those used in our high schools, said: "A substantial proportion of the social-science textbooks used in the high schools tend to criticize our form of government and hold in contempt the system of private enterprise . . . There is a notable tendency to play down what has been accomplished in this country and to stress the defects of our democracy."

UNESCO. These letters stand for one of the "specialized agencies" of the United Nations—United Nations Educational, Scientific and Cultural Organization. It is the opinion of some people that this agency is neither educational, scientific nor cultural.

Senator Pat MacCarran, Democrat of Nevada, has had the courage to state publicly that: "I made an error which I shall regret all the days of my life when I voted for the United Nations Charter before I had even read it." Senator MacCarran's subcommittee held three hearings on UNESCO and he stated: "This is a very clever propaganda campaign to sell the people of this country and particularly the school children on the doctrine of One World Government and World Citizenship. . . . The Committee had presented to it documented proof of this insidious campaign."

A Job Past Due. For twenty years the enforcement of anti-monopoly laws has been in the hands of zealots, many of them with a predisposition against private enterprise and many of them more or less open adherents of government control of the whole field of business and industry. The very looseness of the anti-monopoly laws has been a boon to them.

Attorney General Brownell is trying to review and codify the anti-monopoly laws. It is a job past due. But the best drawn law is no guarantee against the law enforcement agent whose zeal causes him to try to usurp powers which the law did not grant and never intended. And if zealots are placed on the bench to encourage the zealous prosecutor there is no protection for the citizen.



PEDESTRIAN BRIDGE for Mt. Carmel High School, Lawson, Kentucky. This is one of the smallest suspension bridges designed and fabricated by American Bridge in many years. Structure was erected by the faculty and students of the school.

Study in Extremes

by

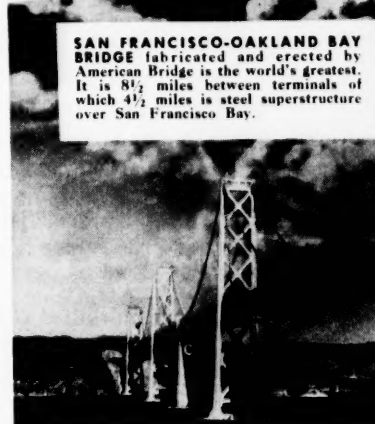
AMERICAN BRIDGE

MOST people associate American Bridge with *big* bridges. And that's understandable, for they're the ones that make the headlines.

But, American Bridge also builds small bridges. In fact, we have recently designed and fabricated a part of an exceptionally small suspension bridge. We show it here. And to give you a better idea of the wide variety of our work, we also show a picture of the famous San Francisco-Oakland Bay bridge, the world's greatest bridge.

What a study in extremes! The little pedestrian bridge is only 402' 7½" long and 6' wide, while the main structure for the tremendous San Francisco-Oakland Bay bridge is 22,720' long. It has two main suspension spans, each 2,310' long. The main span of the tiny foot bridge measures but 244' 7½"! The total weight of the smaller structure is approximately 25 tons; steel for the larger job weighs 201,000 tons!

Contrasting these two bridges is just another way of saying that no



SAN FRANCISCO-OAKLAND BAY BRIDGE fabricated and erected by American Bridge is the world's greatest. It is 8½ miles between terminals of which 4½ miles is steel superstructure over San Francisco Bay.

bridge is too large or too small for American Bridge. We have the fabricating facilities, erecting equipment and technically trained personnel to handle any type of steel construction with exacting precision, thoroughness and speed . . . any time, anywhere. For detailed information regarding your requirements, call our nearest office.

Interesting Movie Now Available for FREE Showing

The new sound and color motion picture—*Building for the Nations*—a candid, factual photographic record of the highlights of the fabrication and erection of the United Nations Secretariat Building in New York is now available for free showing in churches, schools, clubs and industries. For bookings, write Pittsburgh office.

AMERICAN BRIDGE DIVISION, UNITED STATES STEEL CORPORATION • GENERAL OFFICES: 525 WILLIAM PENN PLACE, PITTSBURGH, PA.
 Contracting Offices in: AMBRIDGE • ATLANTA • BALTIMORE • BIRMINGHAM • BOSTON • CHICAGO • CINCINNATI • CLEVELAND • DALLAS • DENVER • DETROIT • DULUTH • ELMIRA
 GARY • MEMPHIS • MINNEAPOLIS • NEW YORK • PHILADELPHIA • PITTSBURGH • PORTLAND, ORE. • ROANOKE • ST. LOUIS • SAN FRANCISCO • TRENTON
 UNITED STATES STEEL EXPORT COMPANY, NEW YORK

AMERICAN BRIDGE



UNITED STATES STEEL

WHEN *is a Worker*

a Worker

and a Half?



When his production record shows it.

We don't say all workers in *The Land of Plenty* are "workers-and-a-half", but it's a matter of record that average production-per-man is unusually high in this great and growing industrial region served by the Norfolk and Western.

That's because manpower here is "home-rooted" with above-par records for sticking with a job . . .

Because absenteeism is low . . .

Because workers here — male and female, skilled, semi-skilled and unskilled — are intelligent, adaptable and unusually loyal . . .

And because there's a dependable supply of them.

Transportation is a major factor in good plant location. YOUR TRAFFIC MANAGER is a transportation expert. Consult him about transportation advantages for your plant.

Locate Your Plant
In The

Land of Plenty

- High-Production Manpower — "Home-Rooted"
- Varied Raw Materials
- Ample Power & Industrial Water
- Dependable N & W Transportation
- Nearness to Markets
- Nearness To The Great Port of Norfolk
- Finest Bituminous Coal
- Favorable State and Local Taxes
- Good Climate, Clean Communities
- Dispersal Advantages and Room to Grow

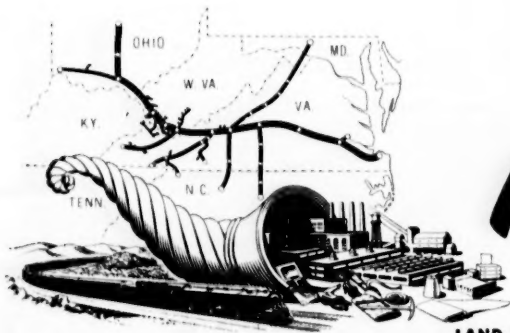
Contact:

INDUSTRIAL AND AGRICULTURAL DEPT.

Drawer MR-620 (Phone 4-1451, Ext. 474)

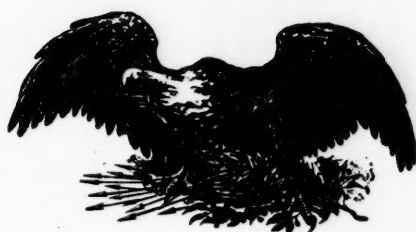
NORFOLK AND WESTERN RAILWAY

ROANOKE, VIRGINIA



Norfolk and Western
RAILWAY

LAND OF PLENTY



"What Enriches the South Enriches the Nation"

Synthetic Rubber

As the last session of Congress was drawing to its close, a so-called "Commission Plan" was worked out and passed, the purpose of which is to dispose of the federal governments' large half-billion dollar synthetic rubber monopoly to private interests.

The "Commission Plan" is something new as a method for getting the government out of an industry and may well prove to be a practical demonstration of how to transfer other government operated businesses to private ownership and operation.

When the outbreak of World War II cut off the nation's source of natural rubber, government production of synthetic rubber was begun on the advice of the Baruch committee. Everyone recognizes that now synthetic rubber has proven to be an important resource necessary to both industry and transportation.

Last November the citizens at the polls spoke in no uncertain tones against government ownership of industries that directly compete with private businesses. The plan to turn over the synthetic rubber business to tax paying ownership is one means to that end.

Briefly outlined, the new plan is as follows: A commission is to be named by the President which will advertise for offers from the potential purchasers of the individual plants now owned by the Reconstruction Finance Corporation. It will then establish a period of not less than six months during which time it will receive bids.

Upon the completion of the period during which bids are received, the Commission will begin negotiations with those whose bids it entertains, while at the same time it maintains constant contact with the Attorney-General to be sure that due consideration is given to the development of a truly competitive synthetic rubber industry, and thus avoid any possibility that the sales, when consummated, would violate existing anti-trust laws.

When all negotiations have been completed and tacitly approved by the Attorney-General, the Commission is directed to submit its report, which will recommend prospective purchasers to Congress on or before January 31, 1955. Congress, if it disapproves, must express its will within thirty days of receipt of the recommendation. Either the Senate or the House of Representatives can reject the whole plan, or any individual plant sale. But if any individual sale is rejected, all bidders are privileged to withdraw, and if not enough sales remain approved to provide specified production capacity levels, all sales will be rejected.

The plan as enacted is a real challenge to private business to prove that not only the synthetic rubber industry, but that any other businesses now in government hands can be sold to private investors to the mutual benefit of those who risk their capital, and to all of the nation's over-burdened taxpayers.

Sales Volume to Taper Off As Boom Flattens Out

But Tax Reductions Should Cushion Any 1954
Corporate Profit Decline

By Robert S. Byfield
Financial Editor

WITH the securities markets at the low of the year and investor sentiment accordingly depressed, it might be well to examine some of the broader factors in the nation's economic accounts. It is our opinion that the quotations for most industrial common stocks did not fully discount the boom conditions which we have been experiencing in recent years. We state this without reservation even though the Dow-Jones Industrials at its 1953 high of 293.79 had advanced about 80% above the June 1949 recession low of 161.60.

In this connection it might be well to remember that this average reached a peak of 212.50 at the end of May 1946 so that the 25% advance since that time is much less striking. But much has happened to the national economy since 1946, which, incidentally, is a good period upon which to base a comparison since it is the first full year of so-called peace since V-J Day. In that year corporate profits, before taxes, were reported at \$23.5 billions with corporate taxes at \$9.6 billions, leaving net profits, after taxes, of \$13.9 billions. In the next year, 1947, this last figure became \$18.5 billions and thereafter corporate profits fluctuated between a low of \$16.3 billions in 1949 and a high of \$22.7 billions in 1950. In 1952 profits had slumped materially from the post V-J high reached in 1950 of \$22.7 billions but so far this year they have been rising slowly and in the second quarter were running at a \$20.4 billions rate. It is quite likely that corporate profits in 1953 will run as high as \$21 billions, the highest on record, with exception of 1950.

However, there is one additional factor which must be taken into consideration in comparing 1950 with 1953. In the former year inventory profits, which according to the Department of Commerce classification are recorded as "inventory valuation adjustment," were \$5 billions. Paper profits due to inventory profits this year should run between \$500,000,000 and \$1 billion only and "real" 1953 profits may be estimated as the high for all time.

A declining stock market is traditionally supposed to discount lower earnings, but recent economic history has not borne out this relationship. Moreover, if the present slump in quotations is to mean that 1954 corporate earnings will decline from the 1953 figure, a number of things must be taken into consideration. Excess Profit Taxes will be eliminated on January 1st and the regular corporate tax rate is scheduled to drop from 52% to 47% on April 1, 1954.

All other things being equal, which, of course, they will not be, this reduction in tax liability would theoretically add about \$4 billions to net corporate earnings. We do not, however, expect 1954 corporate profits after taxes to be as high as \$25 billions. Yet there should, however, be some over-all reduction in tax burden in 1954, particularly in the light of recent Treasury Department estimates that the national budget is approaching a balance. Whether corporate profits in 1954 will run above 1953 will depend upon profits before taxes, which in turn will depend not only upon the volume of business but profit margins. It is too early to estimate whether these two items will decline, although this is generally expected, but the extent of such decline can only be a matter of conjecture. Even beyond this it is seen that tax reductions expected for next year should provide a substantial cushion for any expected reduction in pre-tax net earnings. This is a fact which cannot be neglected in any broad over-all appraisal of security prices at this time.

In any estimate of 1954 net corporate profits there are certain other statistics which must be accorded some weight. National Income was \$180.3 billions in 1946 and there has been an almost unbroken rise since that time. Last year the figure had reached \$291.6 billions and this year it is running at about a \$309 billions rate. Certain other items in the national economy have also increased significantly in this same period. For example, the compensation of employees which was \$117.1 billions in 1946 and \$128.0 billions in 1947 is likely to be \$208 billions in 1953. There have been almost comparable gains in still other items such as personal income, labor income and personal consumption expenditures. It is strikingly evident in the consideration of these various items that net corporate income after taxes has failed to rise in proportion to the expansion of national economic activity. An up-to-date study of corporate profits over a long period of time was made only recently by the National Industrial Conference Board, Inc., based largely on Department of Commerce statistics. Consideration is paid to the question of how big current profits really are. For example, if net corporate profits will amount to \$21 billions in 1953, they will be slightly under 7% of expected National Income. Last year the comparable ratio was 6.3%, whereas in 1946 it was over 7.7%. It is particularly important to realize that profits in recent years fell well below the

relationship to National Income which they enjoyed in such pre-Korean years as 1948 and 1949. They are also well below the similar ratios which they enjoyed in 1929 and 1930. In 1929, for example, National Income was \$87.4 billions whereas corporate profits after taxes were \$8.4 billions, or a little less than 10% of National Income. The relationship of corporate profits to National Income began to drop in 1950 and the decline was uninterrupted in 1951 and 1952. It is quite likely that the relative decline in corporate profits was due to the imposition of the E.P.T. and price ceilings. 1954 will see the first year without either of these pressures bearing on corporate profits.

Of course, as the Conference Board points out, corporate profits should be correlated not only with National Income, but with other relevant items. But we see no reason to follow them up as they do not alter our basic conclusion. What the Conference Board report further states is, that viewed in perspective over the past three decades profits are found to be "a highly stable percentage of national income at comparable stages of the business cycle." If this is a fair conclusion, and we think it is, then these relationships to which we have referred could lead us to become relatively optimistic in our outlook for 1954. For even though a good many observers are willing to predict a decline in corporate earnings, few of them are also willing to state that the National Income will suffer a sharp drop.

If we hazard a guess that National Income will drop to \$280 billions in 1954 and that net corporate profits will be 6.7% of this, or \$18.7 billions, they will be slightly higher than the \$18.6 billions shown in 1952. Incidentally, such a 1954 National Income would represent a drop of \$28 billions from the estimated amount for 1953 or four times the shrinkage of \$7 billions between 1948 and 1949.

New York Life Completes Transaction with Texas Co.

The New York Life Insurance Company has completed a sale and lease-back transaction with The Texas Company involving the new sixteen story Texaco office building at the corner of Canal and Marais Streets in New Orleans, the insurance company announced last month.

The land upon which the building has been erected is owned by the Grace Episcopal Church, which has leased it to the Texas Company under a long-term lease.

The transaction involved the sale of The Texas Company's interest in the land and building to the insurance company at a price of more than \$3,000,000. New York Life simultaneously leased the property back to Texaco under a long-term lease.

The Texaco building, which will serve as district headquarters for the company's operations, is an imposing addition to the New Orleans skyline. It is a modern, full air-conditioned, office building built of structural glass and brick.

T-7 Holds Promise for Cotton Textiles

THE pharmaceutical researchers have not yet concocted any wonder drugs to cure the occasional mild ailments of Dixie's far-flung textile industry, but a research center has just come up with a development that may hold even greater potentialities.

That development is known as T-7—a designation that embraces a spanking new family of fibers that has been produced by the reaction of ordinary cotton fiber, yarn or fabric with a chemical during a basic process known as cyanoethylation.

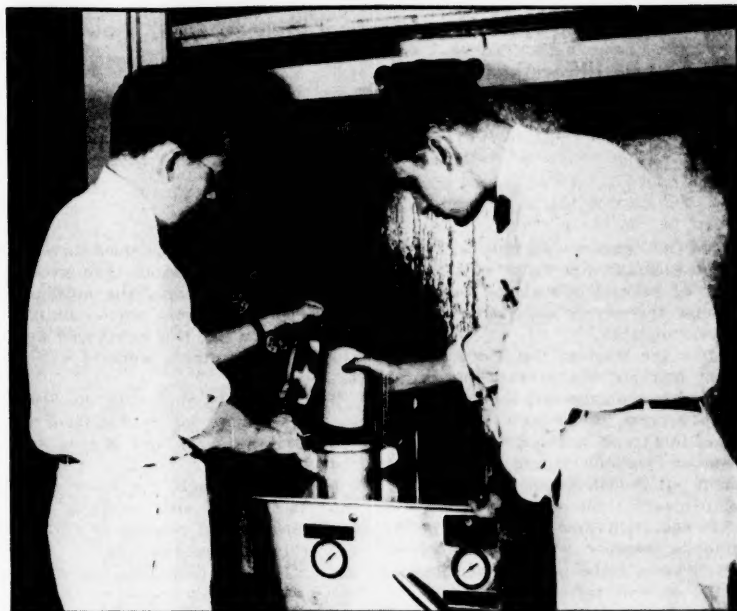
The textile industry itself is buzzing over the news, not only because the new development is potentially of much significance to manufacturers but also because it may eventually lead to an expanding market for the South's cotton growers.

The process was developed at the Institute of Textile Technology at Charlottesville, Virginia, which is the textile industry's center for cooperative research and education, and the culmination of three and a half years of research and experimentation in success was announced by L. H. Hance, the Institute's president.

Of what widespread interest the development is in Dixie is indicated by the fact that there are approximately 1,500 textile plants and 650,600 textile employees in 14 Southern states. Many thousands more, of course, depend indirectly upon textiles for a large part of their livelihood. Throw in the thousands of cotton farmers to whom any program that represents a potential expansion of markets for their staple is of vital importance, and you have a sizable segment of the total population of the South.

The development of T-7 marks the first time that the textile industry, through its own cooperative research facilities (manufacturers own and finance the ITT), has created a new fiber. The T-7 family retains the appearance, feel and other familiar characteristics of cotton but possesses also important added properties. These include permanent resistance to micro-organism attack (such as mildew and bacteria); retention of great strength after exposure to wet and dry heat; and greater receptivity to all classes of dyes, including acid dyes which normally are unsatisfactory on cotton.

The T-7 products, according to Dr. Jack Compton, ITT technical director and the man who instituted and supervised the project, are "very versatile." As a base material, he points out, they can be altered easily by subsequent treatments into products having even more desirable qualities. Textile manufacturers, using their own equipment, can now—for the first time—engineer their own fibers from cotton to meet the demands of the end product. This means, Dr. Compton comments, that manufacturers today can "build into a textile



Research workers removing yarn from the apparatus used to change cotton into the new T-7 yarn.

product many of the specific properties their customers desire."

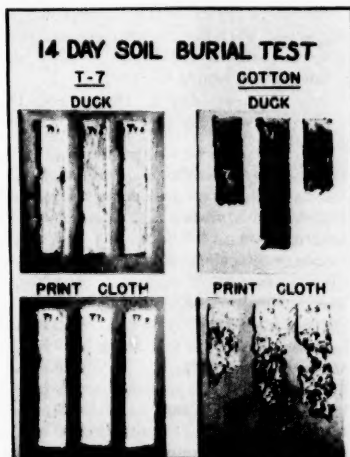
The basic chemical used in producing T-7 is acrylonitrile, which is produced in large volume by the American Cyanamid Company, Monsanto Chemical Company and Carbide and Carbon Chemicals Company. Acrylonitrile is an important constituent of a variety of synthetic rubbers and acrylic fibers, including Orlon, Dynel, Acrilan and X-51. Incidentally, the interest of acrylonitrile manufacturers is reflected in the fact that American Cyanamid Company has renewed for two additional years a fellowship which it contributed to ITT and which already has been in effect for two years. A similar student fellowship also has been established recently by Monsanto.

Actually, the Institute of Textile Technology process is the first to achieve chemical modification of cotton in conventional yarn package treating equipment, with which both yarn and fiber can be processed in a relatively simple manner. The new T-7 fibers can be handled on the same machinery that the manufacturers use for spinning and weaving cotton, thereby obviating the necessity for the installation of expensive new machines. At the same time, they can gain with the fibers numerous qualities which up to now had been obtained only with synthetic fibers.

Commercial scale runs in conventional yarn-treating equipment have demonstrated the feasibility of the process. These runs were made at the Standard-Coosa-Thatcher Company's plant in Chattanooga, Tennessee, which is a member mill of ITT. Larger volume production in pilot plant facilities in some other member mills will be undertaken soon.

In addition to the original developments, Dr. Compton has disclosed that further treatments of the T-7 products have resulted in some instances in production of fibers and yarns which are much stronger than either the original cotton or T-7 products and also possess increased stretch and greater resistance to abrasion.

Because of the fact that the T-7 products may broaden the consumer market for textiles, cotton growers may benefit sharply in the future. Many of these have watched with considerable alarm the threat of man-made fibers to cotton's competitive position, and have feared that the result would be declines in cotton usage.



Note difference in damage to samples.

The Labor Market

How tight is it? How soon is it likely to ease? How the picture differs in the South.

By Caldwell R. Walker
Business Trends Editor

A GOOD man nowadays is hard to get.

This thought, the theme of a popular song of several years ago, has today become the theme song of most employers of labor.

After the start of the war in Korea, labor markets throughout the United States became substantially tighter, and recent reports, indicating a possible leveling of this trend, now come as good news to labor relations departments of practically all industries and practically all companies.

The question now uppermost in the minds of most recruiters of labor revolves around the possible permanence of the current softening trend.

Will the coming fall, with the season's traditional demand for extra labor force, find available supply greater or less than it has been during the past two years?

While this is a question for which the attempt at a precise answer would be rash, it also is one that can draw some light from an analysis of what has been going on, and of what is going on at the present time.

Since the Korean outbreak, five million workers have been added to the working force of the country.

This is the largest increase for a like period that has ever occurred in this country with the one exception of recruitment for the early part of World War II.

Most of the increase has occurred in the realm of Durable Goods.

Two-fifths of all labor force gains during the past two years, equivalent to a total of two million workers is the share recruited by manufacturers of durable goods.

The other three million recruits have been spread rather evenly over the remaining nonfarm industrial components.

The one exception is the coal mining industry which has registered a net decline in its labor force since the Korean development.

For appraising the tightness of labor supply, there are two approaches:

The one has to do with industries, the other with localities.

From the standpoint of industries, probably the best measuring stick is to be found in the hours worked by various industries.

Under present labor laws, employers would be foolish to carry overtime workers on their payrolls if others of suitable skill were readily available.

At present, 25 out of 33 industry groups are paying overtime averaging from 0.4 to 2.5 hours per week.

This payroll premium amounts to a tidy sum—considerably more than would be laid out just to avoid the nuisance of registering additional payroll units.

A situation like this exists only during times when suitable workers are hard to get.

The industries apparently hardest hit in the scramble for needed labor force are Local Railways and Mining (other than fuel).

Ironically enough, the labor element least in demand also occurs in one of these groups and consists of anthracite and bituminous coal miners.

From tightest down, the following are the industries now exceeding the statutory 40-hour week:

Local Railways	45.2 hrs.
Nonmetal Mining	44.9 hrs.
Metal Mining	43.4 hrs.
Telegraphic	42.4 hrs.
Personal Service	42.0 hrs.
Hotels	41.8 hrs.
Class I Railroads	41.3 hrs.
Power Utilities	41.2 hrs.
Oil Extraction	41.0 hrs.
Wholesale Trade	40.4 hrs.

Below the 40-hour week are the following:

Retail Trade	39.1 hrs.
Telephonic	38.7 hrs.
Construction	37.6 hrs.
Coal Mining	33.0 hrs.

Half of the increase in labor supply since 1950 has occurred in Manufacturing Enterprise.

It is interesting to note, however, that a wide range exists in the manufacturing work week, with the highest group showing an average of 42.9 hours weekly, and the lowest 36.6 hours weekly.

From highest down, these are the groups now working more than 40 hours per week:

Paper and Allied Prod.	42.9 hrs.
Machinery	42.5 hrs.
Fabricated Metals	42.0 hrs.
Instruments	41.6 hrs.
Primary Metals	41.5 hrs.
Chemicals	41.4 hrs.
Trans. Equipment	41.3 hrs.
Stone-Clay-Glass	41.2 hrs.
Lumber	41.0 hrs.
Miscellaneous Mfg.	41.0 hrs.
Food	40.9 hrs.
Petroleum-Coal Prod.	40.9 hrs.
Furniture	40.9 hrs.
Electrical Equipment	40.7 hrs.
Rubber	40.5 hrs.

Below the statutory work week are:

Textiles	39.3 hrs.
Leather	37.4 hrs.
Tobacco	37.0 hrs.
Apparel	36.6 hrs.

As currently employed, eight million workers, or about half of the Nation's factory force, are working from 41 to 43 hours per week.

Between May and June, the number of nonfarm workers increased 300,000, indicating a rising rather than softening trend.

Furthermore, as noted earlier, the autumnal employment peak is still ahead.

However, there are some indicators pointing to a lessening of the heavy pressure now resting upon labor relations departments.

In June, Machinery manufacturers reported further reduction in labor force, a trend that has persisted now over several months' duration.

News from Motor Vehicle production centers indicates also a downward turn in hirings.

Construction employment is now somewhat lower than for the same time last year, and is likely to decline still further.

Practically the entire gain in employment since 1950 was made in 1951 and 1952. Since the beginning of 1953 employment has been maintained at peak levels, but has not risen above these.

A leveling tendency became apparent early in the year, and has become more pronounced with each passing month.

If this leveling continues, as it appears likely to, the influx of new youth should soon so augment the labor force as to eliminate most of the pressure that has existed in the past two years.

Viewed from a geographical basis, the point made so often in these columns still holds good.

The South offers the best solution of any and all problems involving labor supply.

While recent years have seen a gradual and substantial absorption of surplus Southern labor, there still are about one and a half-million workers in the South who are unable to exert their entire work potential in the rural pursuits they now follow.

Factories established at many, widespread points in the South could expect to recruit essential labor locally at far less cost than would be entailed in importing or transporting workers from surplus to tight labor localities.

Furthermore, while there also has been a gradual and substantial narrowing of wage differentials, the South's wage rates still are sufficiently below those of the National average to present an attractive lure to industries that feel that low-cost operation is essential during early years of operation.

Taken all in all, the labor market is not likely to ease greatly overnight; but there are hopeful signs on the horizon; and there are definitely inviting signs right now for employers who will take time to investigate Southern Opportunities.

Changing Federal Attitude Toward Business-Managed Power Companies

FROM the actions of the first session of the 83rd Congress, from the pronouncements of President Eisenhower, Secretary of the Interior McKay and other officials of the Eisenhower administration, and from the courts, it is obvious that the socialistically conceived federal power program of the New and Fair Deals has been officially abandoned.

This is not to say that the federal government is now completely out of the electric power business, nor that the steps that have been taken to date are conclusive to that end, but, rather, that through its recent policy statements the present administration has served notice that it is determined to halt the encroachments of the federal government on private industry (in this case the business-managed power companies) and that progress is being made toward that end.

Compare, for example, Secretary McKay's policy statement where he says, in part, that the Department of the Interior "does not assume that it has exclusive right or responsibility for the construction of dams for the generation, transmission and sale of electric energy in any area, basin or region," with the expressed opinion of his predecessor, Oscar Chapman. Mr. Chapman, at one time during the course of litigation against the Virginia Electric & Power Company in 1950 with regard to the latter's desire to develop the Roanoke Rapids, N. C., area, stated that it was his duty to prevent private power companies from developing sites which later might be used for public power supply.

Secretary McKay's statement was made in connection with the controversy which resulted from the Idaho Power Company's application (some time ago) to build three dams on the Snake River on the Idaho-Oregon border. Construction of these dams conflicted with previously announced plans of the Democratic administration to build a giant dam in Hell's Canyon of the Snake River as part of the Columbia River Basin development.

The Eisenhower Administration withdrew Government opposition to the plans of Idaho Power Co. last May, and the case is now before the Federal Power Commission. A decision is expected early next year.

The policy statement by Secretary McKay spelled out in detail the thinking

behind the formal withdrawal of opposition against the construction of a number of small dams by private interests.

The Department of the Interior will no longer oppose the construction of facilities "which local interests, either public or private, are willing and able to provide . . . and which are consonant with the best development of the natural resources of the area."

This decision certainly points out the change in "climate"; that of allowing private enterprise to construct such projects where it is economically feasible for it to do so. Idaho Power's plans for three dams call for an expenditure of \$163 million, and will develop almost as much power as one large federal dam that would cost two and a half times as much.

Prior to this action regarding Idaho Power, the U. S. Supreme Court on March 16 of this year, in a 6-to-3 decision, decided in favor of the Federal Power Commission in its granting of a license to Virginia Electric & Power Co. to build a hydroelectric plant at Roanoke Rapids, N. C.

As indicated above, the Commission's right to issue the license had been challenged by Oscar Chapman who contended that approval by Congress of the Army Engineers' general plans for development of the river prohibited any part of its development by anyone other than the Federal Government. The Supreme Court ruled that Congress had not "withdrawn" the authority of the FPC to license projects that were "in the public interest." It was pointed out that Congress has approved such plans for nearly every river in the country, and therefore an adverse decision would have prohibited hydropower development by private electric companies in the future.

Additional evidence that there has been a change is apparent in Congressional appropriations. In appropriating \$178 million for TVA power facilities, Congress cut the Truman budget request by \$61 million. A proposed \$30 million to begin a new steam plant at Fulton, Tennessee was voted down while \$17.8 million for new units at existing plants was approved.

Steam generation was first justified on TVA in order to firm up the hydroelectric power during periods of low river flow. This argument was dropped several years ago, however, and a steam

plant program has been in full swing up until this year. TVA was thus fast becoming a federal power utility with a monopoly in the Tennessee Valley and surrounding areas. This was certainly a far cry from its original reason for being—as a resource development agency. TVA admits that the river plant is complete and that any additional power must come from fuel-burning plants. It has eleven steam plants in operation now and five more under construction.

Through appropriation machinery, then, Congress is trying to stop the extension of TVA power, and at the next session an effort will be made to allow TVA distributors to purchase power outside or to build their own generating plants. Action such as this must be taken if private enterprise is to return to the Tennessee Valley.

The free enterprise system and the business-managed power companies met with success in the House of Representatives in the dispute over who should be allowed to develop additional hydroelectric power on the Niagara River, but will have to wait until the next session for the final decision because Congress adjourned before the Senate Public Works Committee reached a decision. A measure permitting five New York electric companies to join in the project was passed by the House, 262-120. Other bills which called for federal development and a state plan under a Power Authority were rejected. Advocates of the two public power proposals joined forces in hearings before the Senate Committee and were successful in blocking further consideration of the bill in the first session.

Commenting on the situation generally, **Public Utilities Fortnightly** had this to say in its issue of August 27th: ". . . it is apparent that the 'change of climate' is the most noteworthy feature (of the first session of the 83rd Congress), compared with previous sessions. Public Utilities are no longer suspect, per se. Their complaints are listened to, if not yet acted upon as in the case of tax legislation still pending. Uninhibited spending for public power projects without regard to the effect on private industry is apparently a thing of the past."

"This 'change of climate' has been most notable in key committees of both chambers, such as Appropriations, Public Works, and Interior.

"The final Interior Department Appropriations bill for 1954 contained some changes for public power operations. A Senate-House conference committee compromised on \$116,269,660 for construction of reclamation projects in recommending a \$433,561,550 appropriation for Interior in the next fiscal year. The final figure agreed upon compares with \$607,336,400 sought by former President Truman, and \$491,119,200 requested in the Eisenhower budget."

As stated at the outset, the Federal Government is far from being out of the electric power business. The facts and figures above bear this out. But at the same time progress has been made in that direction.

Revival of Freight Absorption in Basic Materials

By Sidney Fish

Industrial Analyst

FREIGHT absorption by producers of steel, cement and other basic materials is slowly being resumed throughout the country. It is returning to use for two reasons: First, competition is bringing it back; and second, the new Federal Trade Commission, and the Government as a whole, seems to be taking a more realistic and sensible attitude towards the pricing policies that industry needs in a competitive market.

The resumption of freight absorption thus far has been carried out on a cautious basis. Many leading steel and cement producers have been told by their counsel that they should seek legislation specifically making freight absorption legal whenever it is carried on in good faith to meet competition. The lawyers apparently realize that the new members of the Federal Trade Commission are in favor of freight absorption. But membership on this body is subject to change and, therefore, real protection against punitive suits can only be assured if Congress acts to spell out the legality of freight absorption.

But if competition returns in the industry—and there is every indication that it is coming back, as the result of the big expansion of industry's capacity—then leading steel producers would probably accept the present opinion of the majority of the Federal Trade Commission, which holds that freight absorption is an essential pricing tool in business. They would do this in the hope that Congress would soon specifically legalize freight absorption.

The indicated return of freight absorption means that in shipping to certain highly competitive centers, the more distantly located makers of steel, cement aluminum and other basic materials, will absorb freight charges to a sufficient extent to meet the delivered price of a more advantageously located competitor.

For example, a cement company with two plants, one in South Carolina and one in Tennessee, which attempted to serve a construction project in eastern Georgia, might elect to absorb freight charges between Tennessee and South Carolina, to meet the competition from another cement company in South Carolina. In this way, the first cement company could ship cement from both of its plants, and the customer would pay a price competitive with that of the other cement company.

Freight absorption is not likely to be practiced nearly as extensively as it was

in the days before World War II. There are several good reasons why this is so. In the first place, freight costs have risen greatly—they have just about doubled since World War II. This means that there are definite cost limitations on freight absorption. A given mill must draw the circle around its potential market much closer in than was the case a few years ago.

The second reason is the decentralization of industry that has taken place in the last thirteen years. Numerous new mills have been constructed in all parts of the country. In the South, for example, new steelmaking capacity has been added at old as well as at several new locations—in Texas, in Georgia, Alabama, Tennessee, Kentucky, etc. The gain in capacity has made it less necessary to rely on suppliers in other parts of the country.

The third reason that freight absorption may be a little slow in returning in any volume is the fact that some kinds of steel are still in short supply. As long as this condition exists, there will be little incentive for major producers to absorb freight on those products. They can find all, or substantially all of the demand that they need for full production without offering the inducement of freight absorption.

Freight absorption can be expensive to the industry that practices it. In one recent year, after World War II, when the steel industry was still practicing freight absorption—prior to the Supreme Court decision in the cement case—it is estimated that freight charges absorbed by the mills totaled \$70 million. But in those days, steel was in very tight supply, and the mills were making an effort to relinquish distant customers who would not normally fall within their zone of business. In a highly competitive market, the freight absorption bill could come higher than that, but there would still be practical limitations on the total cost, owing to the fact that distant customers would not be profitable customers.

In anticipation of the return of competitive markets, steel mills have been actively engaged in setting up many new warehouses. This has been done to serve customers more quickly and easily. The big wholesale distributors of steel have also been setting up branch warehouses to enable them to meet competition. This trend has been particularly noticeable in the South, where many new warehouses

have been built in recent years, in recognition of the growth of the Southern metal fabricating market.

Thus far, only a handful of steel producers have gone back to freight absorption. In most cases, the items selected were highly competitive specialties, like wire rope. In other cases, high-cost steel plants, which have had to seek premium prices above those charged by the larger mills, have begun to absorb freight to place themselves in a better competitive condition.

In zinc, freight absorption has come back much more emphatically, because the domestic freight industry has had to meet vigorous competition from European zinc sellers. Thus, American Smelting and Refining Co. has established a two-zone pricing system, with a uniform price of 11½ cents to all customers east of the Continental Divide, and a uniform price of 11¼ cents to all customers west of the divide.

This means that on shipments from east St. Louis, the company is absorbing heavy freight costs, particularly on the Atlantic and Pacific seaboard, where steel expansion has been vigorous. In these areas, about one-half of the entire zinc consuming capacity of the country is now located, because this is where the large facilities exist for galvanizing sheet steel. The company has moved to stimulate greater use of prime Western zinc by the American steel plants, and has thus attempted to meet foreign competition.

Freight absorption, as it is practiced today, is not likely to stunt the economic development of any part of the country, as may have been true in the days of "Pittsburgh plus." In the first place, steel is shipped on an f.o.b. mill basis from every single producing facility today. The practice of charging "phantom freight" from Pittsburgh, where a customer in another part of the country actually receives his steel from a mill located at his back door, is not going to be resumed. The customer who is located close to a mill, will receive the full benefit of his advantageous location. He will get more—for as freight absorption is resumed, he may have a choice of several mills, each of which will attempt to offer him better service or better quality, to get his business. Such active competition cannot help but contribute to a healthier state of affairs for steel consumers in the various parts of this country.

Nor need there be any fear that widely scattered facilities that have been erected in recent years will be forced to the wall by the unwise use of freight absorption. If the new steel producing plants have been able to keep their costs under control, they should have no difficulty meeting the competition of older mills, for the latter will hesitate to incur too heavy freight charges.

The reversal in Government thinking concerning the soundness and legality of freight absorption has come on a step-by-step basis. Even before the Eisenhower Administration came into office, the Federal Trade Commission showed

signs of reversing its policy. One of the commissioners, Lowell Mason, had long been an opponent of the unrealistic approach of the New Deal members of the commission, who held that freight absorption was discriminatory and tended to reduce competition. By finding that freight absorption was collusive and discriminatory, they invoked the Robinson-Patman Act, and laid violators of their ruling open to suits for triple damages.

The FTC thinking, however, evoked a storm of protest from manufacturers. The latter charged that the FTC policy would make it impossible for them to compete effectively, because they would be unable to meet the prices of their competitors in one city by absorbing freight charges, without being required to reduce prices by a comparable amount to every other buyer. The manufacturers also maintained that the ban on freight absorption placed consumers at the mercy of the local mills, because plants more distantly located would be unable to meet that plant's competition.

Faced with these protests, the FTC began to back-pedal, but its rulings never made sense to business men, prior to the advent of the Eisenhower Administration. FTC, yielding ground, said it would not object to freight absorption, if it was practiced in isolated cases and not on a consistent basis. But producers pointed out that the FTC ruling was of little help, because in most cases, freight absorption would have to be practiced consistently, once it was started for certain customers. Hence, few producers indicated they would avail themselves of the FTC "liberalized" rule authorizing intermittent or "non-consistent" freight absorption.

The big change in Federal policy came this year, with the appointment of Edward F. Howrey, as the new chairman of the FTC.

In response to a request for an opinion, addressed to him by Senator William Langer of North Dakota, Mr. Howrey said:

"To deny business men the right to competitive freight absorption requires that every seller purchase from the closest supplier (or suffer the penalty of paying higher prices) and it limits each seller to those customers located closer to his plant than to the plant of any other seller."

Mr. Howrey also indicated that he regarded zone pricing, such as that adopted by American Smelting & Refining as legal, thereby reversing the views of the old commission.

The return to freight absorption does not mean that every purchaser can look forward to lower delivered prices on steel, cement or other basic materials. Freight absorption will come into the picture in those cases where a customer has bought steel from two or more suppliers, located at various distances from his plant. In such case, he may well expect that the more distant supplier will absorb enough of the freight cost to equalize his delivered price, and thus remain competitive.

For many steel purchasers, it means that normal competitive purchasing practices are coming back into use, as the supply of steel gradually comes into balance with the demand. For with a total steel capacity of close to 120 million tons, the steel industry is probably able to take care of the demand in good style. This does not mean that there will be a sharp drop in steel production. Actually, if a dip occurs, it may not affect any of the more efficient plants, but will merely mean curtailed operations at older, poorly located mills.

Pennsalt's New Calvert Plant Now in Operation

The new \$8,000,000 electrolytic chlorine and caustic soda plant at the Calvert City works of the Pennsylvania Salt Manufacturing Co. is now in production, it was announced.

The new DeNora electrolytic cells have been charged with brine made from Louisiana salt and activated with TVA power and are now producing chlorine and high purity, high strength caustic soda. Chlorine and hydrogen from the cells are being combined in the new anhydrous hydrogen chloride unit, and deliveries of these basic chemicals have started.

Present during the testing and start-up period were Dr. Vittorio DeNora of Milan, Italy, and representatives of the Monsanto Chemical Co., who license the cells in America. Pennsalt operators predict the new plant—the largest privately financed installation of its kind in America—will be up to maximum capacity production in a short time.

The new plant is the largest single expansion project undertaken by Pennsalt

and is part of a \$12,000,000 program which also includes construction of a new synthetic ammonia unit at the company's Wyandotte, Mich., works. The construction was partially financed by the issuance of new common stock in May of 1952 and the balance from company reserves.

Pennsalt began production of hydrofluoric and sulfuric acid at Calvert City in 1949, the first industrial operation in what has now become one of America's new chemical centers. The addition of chlorine, caustic soda and anhydrous hydrogen chloride production to sulfuric acid and hydrofluoric acid gives Pennsalt a unique combination of heavy chemical production at this works.

Ground was broken for the new plant in February, 1952. Principal buildings are the cell room; the rectifier and switchgear building; the chlorine compression and liquefaction unit, and the anhydrous hydrogen chloride unit.

Miscellaneous construction includes a change house, storehouse, extensions to the plant maintenance shop, administration building and laboratory, and other service buildings. Many of the units are outdoor construction. A multiple cell dock, consisting of five steel, concrete-capped cells, was constructed on the Tennessee river to serve the plant for barge shipments. Railroad spurs were constructed connecting the plant with the Illinois Central railroad.

Engineer-contractors were the Leonard Construction Co. of Chicago, for the chlor-caustic unit and services, and the Girdler Corp. of Louisville, Ky., for the anhydrous hydrogen chloride unit. The dock was built by the Dravo Corp. of Pittsburgh. The entire project was supervised by the Central Engineering Department of Pennsalt.



"The efficiency expert's advice is to let them have their morning coffee. It keeps them awake until lunch time"

New Steels Lessen Industry's Dependence on Imported Alloys

IN the August issue of *MANUFACTURERS RECORD*, we reprinted a thought-provoking speech by Mr. Robert S. Lynch, president of Atlantic Steel Co., Atlanta, Ga., entitled "The Seven Missing Keys."

In this speech, Mr. Lynch pointed out that seven basic alloys widely used in today's highly specialized steels, are largely imported by the United States, and some of these from the most distant parts of the world. The seven alloys discussed were manganese, vanadium, chromium, cobalt, columbium, tungsten and nickel. Four other alloys were mentioned as useful, but not as important as those above. These four are molybdenum, titanium, zirconium and germanium.

After reading Mr. Lynch's manuscript, several questions arose, the most important of which was, what is the steel industry doing by way of research and development to assure continued production of alloy steels, through the use of new processes or new or substitute alloys, in the event that sources of supply for the seven key alloys are partially or completely cut off.

Accordingly, we have gathered together, with the help of the American Iron and Steel Institute, a good deal of information pertaining to the availability and current uses of the more critical elements mentioned by Mr. Lynch. It will be obvious to the reader, after reading what follows, that the American steel industry is vitally concerned with this problem, and that its vital research and development facilities are working at top speed, with good results, to insure a continuous supply of the alloy steels so vitally needed for America's highly diversified industries.

Manganese—The United States imported a record high of manganese ore from 19 countries during 1952. The tonnage of contained manganese, 969,000 net tons, was also a record. High grade metallurgical manganese ore is lacking in commercial quantities in this country.

Of the five top-ranking manganese sources which together supplied three-quarters of the tonnage imported in 1952, only Cuba and Brazil are in the Western Hemisphere. The other three leading sources—India, Union of South Africa and the Gold Coast—are at the end of much longer trade routes. Two of the largest known high-grade manganese deposits in the Western Hemisphere are located in Brazil. One rich deposit is on the Bolivian border north of Paraguay in a relatively inaccessible area. An American company is beginning to develop other rich deposits north of the mouth of the Amazon River.

The steel industry consumed more than 465,000 tons of new manganese in steel-making operations during 1952, the first year in which an official record was kept. Additional manganese entered the steel-making cycle in the scrap, pig iron and other materials charged into open hearth steelmaking furnaces.

India was the largest source of manganese imports during the past year, accounting for more than 352,000 tons, or about 35 per cent of the total. The Union of South Africa supplied nearly 130,000 tons of manganese, and was the second largest source. Other large suppliers in 1952 were Cuba 111,000 tons, Gold Coast 108,000 tons, and Brazil 77,000 tons of manganese contained in metallurgical grade ore. Russia, a principal source of manganese for steel furnaces in the United States prior to World War II and again in 1948, supplied none during 1952.

Steel furnaces normally account for about 90 per cent of total annual consumption of manganese. The element is also used by the chemical industry. A large purchaser is the Metals Reserve Company, operated by the Government to build up a backlog of critical materials.

Up to one-half of the manganese requirements of the steel industry may eventually be recovered from open hearth slag, if a process given recent pilot plant tests proves feasible economically.

Experimental work done prior to these tests has demonstrated that at least three processes for the recovery of manganese from open hearth slags are technically feasible. As work progresses, each of these processes will be scaled up to a sufficient degree to determine its practicability and economic value in the event of an emergency.

The heavy dependence of the United States upon imports of manganese would thus be lessened.

There is no commercial method of making steel without manganese. An average of about 13 pounds is used in the production of a ton of steel. Much of this finds its way into the slag.

The pilot plant tests were conducted in Pittsburgh. They were a cooperative project sponsored jointly by American Iron and Steel Institute and the Bureau of Mines.

The process developed consists of a two-stage treatment in which the open hearth slag is treated first in a blast furnace and then in a basic converter. The process does not have any unusual technical difficulties, according to engineers. The question now is whether the

cost of the recovery process, as used on a large scale, outweighs the value of the material.

Nickel—The situation with regard to this element is not nearly so acute, even though more than 99 per cent of the nickel consumed in this country is imported. The Dominion of Canada mines approximately 80 per cent of the world's nickel, and about 96 per cent of America's nickel consumption was imported from the Dominion. The rest was imported from New Caledonia, Norway, the United Kingdom and a nickel plant in Cuba, that had served us during the war, has been reactivated and is shipping small amounts to this country.

Nickel is a tough, white, magnetic and malleable metal. When alloyed with steel it increases the strength, ductility, and stiffness of the steel and improves its resistance to heat and acids. Yet the widespread use of nickel in the steel industry began only about the time of World War I.

The United States is the world's largest consumer of nickel. Steel plants are the largest users taking about 45 per cent of total national consumption. Only chromium is more widely used as an alloy in steel.

The manufacture of stainless steels takes more than half of the nickel consumed by the industry. The most popular of these steels contains 8 per cent nickel with 18 per cent chromium. Nickel alloy steels commonly have a 2 to 4.5 per cent nickel content and are used where heavy duty may be expected, such as in automobile shafts and gears. Oil drilling takes considerable 9 per cent nickel steel in tubing and sucker rods, both for corrosion resistance and toughness. At 22 per cent nickel content, steel resists the corrosion of salt water. In a higher range, nickel makes steel resistant to electricity. The steel thus becomes hot and is used in some kinds of resistor coils. Steel with a nickel content between 36 and 46 per cent expands and contracts very little under extreme temperature changes and is very corrosion resistant. Use of nickel as an alloy in iron castings produces effects similar to those in steel.

Tungsten—Although the United States is among the five leading producers of tungsten, between 70 and 80 per cent of the nation's requirements have been imported in normal times. China, Malaya, Bolivia, Argentina and Brazil are important sources of tungsten. The Sandong mine in South Korea is located in one of the world's largest deposits. Ten years ago Korea was the world's second largest producer of tungsten ores, ranking only after the United States in output. In this country Idaho, Nevada and California are the principal producing states. Domestic ores contain about 0.50 to 3.0 per cent of metal. Ore must be concentrated to at least 60 per cent tungsten before it can be made into ferro-tungsten for use in steel making.

Tungsten is well known for its use in electric light bulb filaments. However, the steel industry takes about 90 per cent of the tungsten consumed in this country, while the manufacture of light

bulbs requires less than two per cent. The remainder is used in tungsten carbides, chemicals and dyes.

The most important use of tungsten as an alloying element is in tool steels. Some of the high-speed tool steels containing 14 to 20 per cent tungsten, retain their cutting edges at extremely high temperatures. This property is enhanced by the presence of chromium, vanadium, molybdenum or cobalt in the steel with tungsten.

Tungsten was probably the first alloying metal purposely used in steelmaking.

Cobalt—Cobalt is an increasingly important element in making special alloy steels because this tough, silvery white magnetizable metal is used in such critical items as jet engines, gun barrel linings, and radar. It was one of the first strategic metals to be placed under complete government control in 1951, and it is, therefore, one of the elements for which suitable substitutes must be found.

Recently developed "super alloys" (which have military applications) also containing tungsten, chromium and molybdenum, constitute the most rapidly expanding use of cobalt. Permanent magnet steels, such as those used in radio and television speakers and in radar equipment, are the largest single consumers of the element. Porcelain enamel coatings for steel also contain cobalt. Additional cobalt is used by the steel industry in cemented carbide dies for cold drawn bars and wire, and in hard facing for dies. An essential property of the element is its heat resistance. Its melting point is 2,723 degrees F. In certain tool steels it helps impart hardness at high temperatures.

Cobalt is found associated with other metals such as copper, nickel, iron, arsenic, lead, zinc, manganese, silver and gold. Although the United States is the world's largest consumer of cobalt, most of it must be imported. In recent years, Belgian Congo, Northern Rhodesia, Canada and French Morocco, with the United States, have accounted for about 95 per cent of world output. Belgian Congo normally produces nearly three-quarters of the total. However, developments in Northern Rhodesia, made partially with the aid of funds from the United States, are expected to boost that country's production. Exports of Canadian cobalt to this country have also increased somewhat.

Commercial domestic production of cobalt metal at present is almost entirely the by-product of iron ore mining in Pennsylvania. Between 500,000 and 700,000 pounds of cobalt are produced annually at this source. However, by the end of 1952 the United States is expected to have an additional 3.5 million pounds of domestic cobalt capacity. A deposit near Salmon, Idaho, on the verge of exploitation, is estimated to be able to supply between two and three million pounds annually. A lead and zinc mine near Fredericktown, Missouri, plans to recover about 500,000 pounds of the element a year from concentrates saved from regular operations. In addition, a mine near Cobalt, Ontario, is planning to recover

about 750,000 pounds annually from silver ores.

Zirconium and Titanium—As mentioned above, of all the numerous raw materials essential to the production of virtually all grades of steel, manganese may be singled out as definitely the most critical in terms of domestic availability. In the search for satisfactory substitutes for manganese in steel making, titanium and zirconium have been considered. The results of investigations on these elements have indicated that they not only show good promise as substitute materials, but they also impart a number of distinctly beneficial properties to the steel.

While research has indicated that both of these elements show promise as substitutes for manganese in steels, it has been pointed out that on the basis of cost, the use of these elements merely to effect a substitution would be altogether impracticable. Selling prices per pound of contained elements shows zirconium to be approximately six times as expensive as manganese, and titanium almost twelve times as expensive as manganese. Therefore, although the use of these elements as substitutes appears to be impracticable from the standpoint of price, the possibility of such substitution as an emergency measure is definitely worthy of consideration.

Titanium is a familiar alloying material in steelmaking. The element has been known for 159 years and has been used by the steel industry for at least 50 years for an increasing number of purposes.

The element titanium is the ninth most abundant in the earth's crust. Its principal ores are ilmenite and rutile, although several others are mined commercially. Until recently, India was the largest producer of titanium ores, but

during the war the United States took the lead. Today, the world's largest titanium mine is in the Adirondack Mountains of New York. Metallurgically useful ores generally contain 24 to 36 per cent of the element.

The value of titanium to the steel industry lies largely in its being an extremely active element. It combines readily with oxygen, hydrogen, nitrogen, carbon and other elements. For the same reason, it is difficult and costly to refine from its ores into pure metal or a ferroalloy.

Titanium strengthens certain steels at elevated temperatures and aids other alloys in producing that effect. It is used in the making of some stainless steels and tool steel manufacturers are using it. In one of its most important applications, titanium added to a ladle of molten steel helps produce a metal which rolls down to strip with a uniform surface for enamel coating. The element has also been used in steel for tin plate to improve surface quality. Also, when there is 4.5 times more titanium than carbon in steel, a small, uniform grain is obtained in the metal for deep drawing into such products as automobile fenders and crowns.

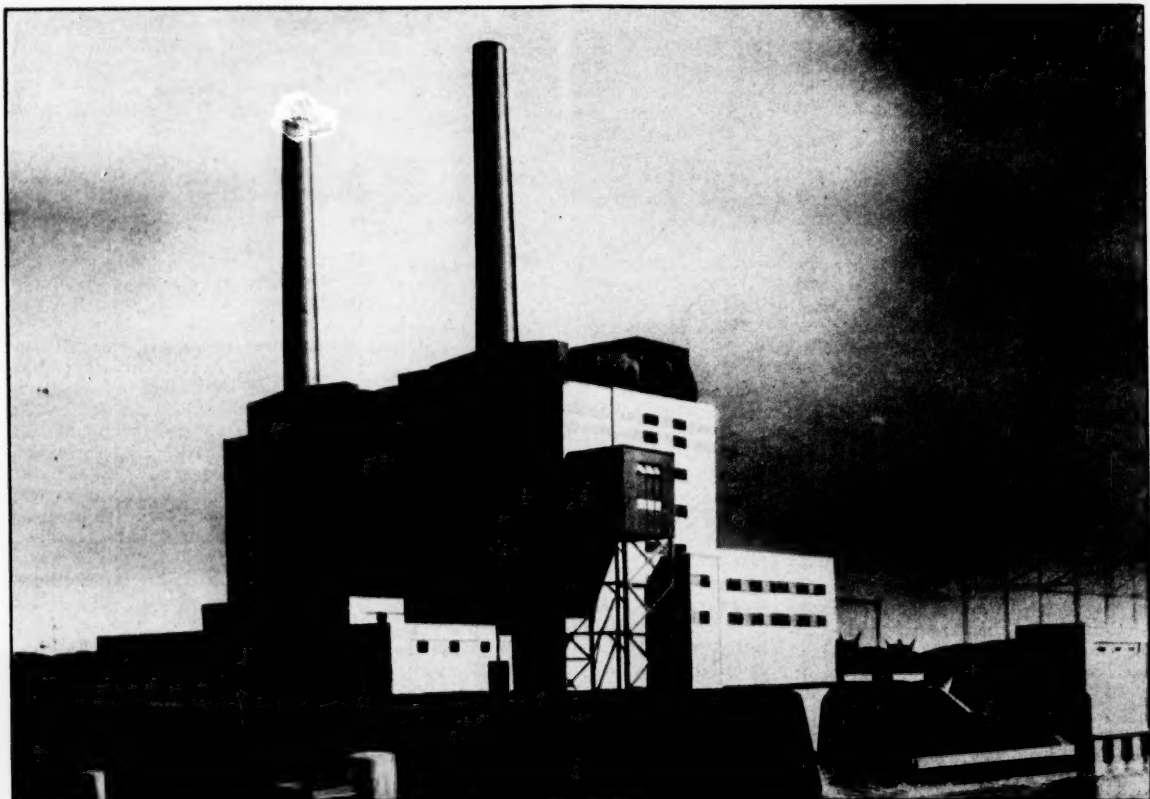
Zirconium, in its own right, is a valuable alloying metal used in steelmaking. It is usually added to the ladle of molten steel as a furnace is tapped. It removes harmful oxygen from the steel and, by reacting chemically with sulphur and carbon, has a cleansing effect. It is used in steel for some tough high-strength parts, such as certain axles, crankshafts and rock drills. Some tungsten-free high-speed tool steels contain zirconium, as do certain stainless steels containing a combination of elements to make them machine more easily. The element has

(Continued on page 52)



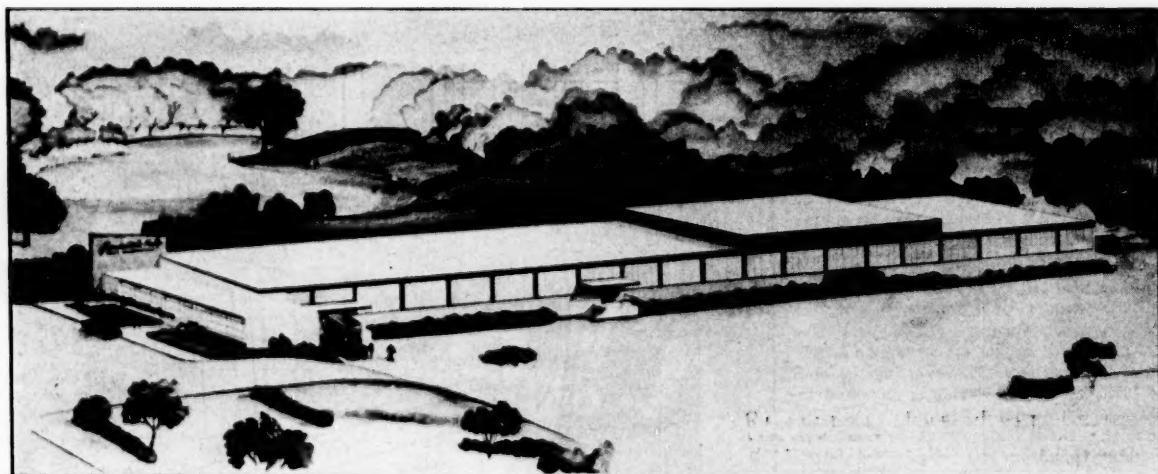
"He's the only foreman I ever saw who could get any work out of Wilton!"

INDUSTRIAL



IN WEST VIRGINIA

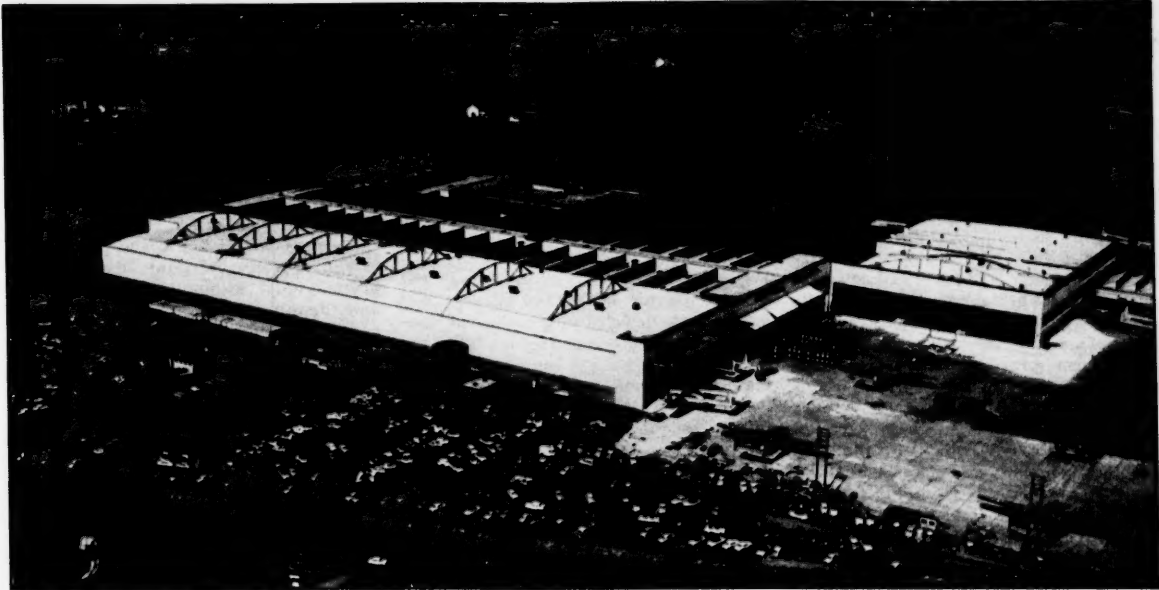
The new \$47,000,000 Kanawha River generating plant of the Appalachian Electric Power Co. at Glasgow near Charleston. The new plant will produce 400,000 kilowatts when operating at capacity.



IN TEXAS

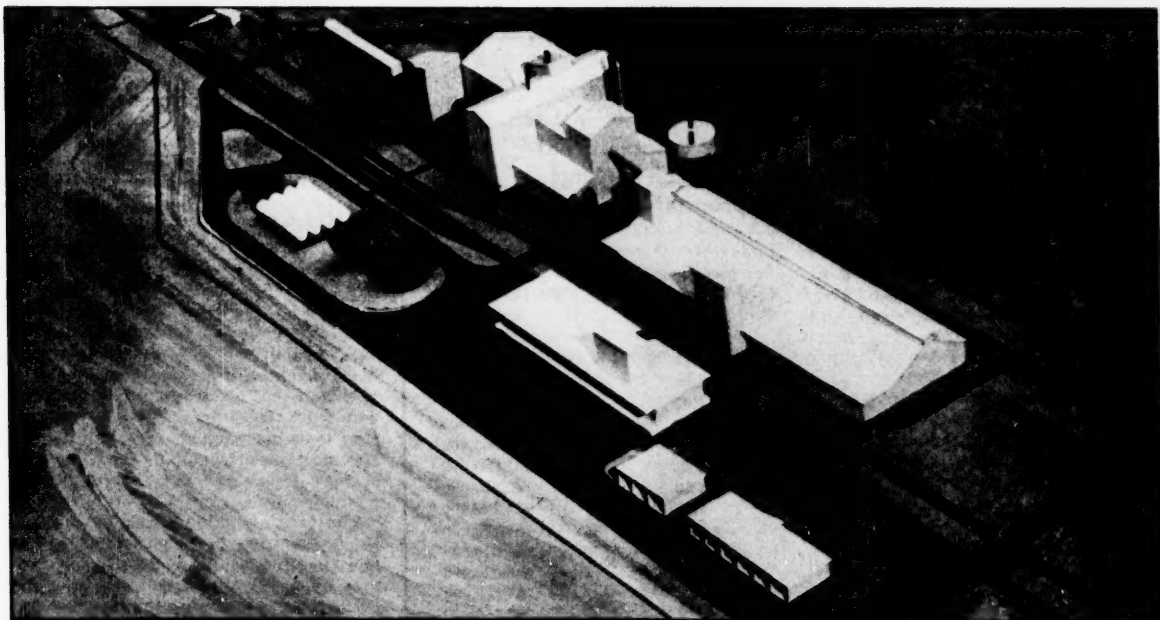
Resistol Hats, Inc. plans to construct this fur felting plant at Longview. The building will contain 60,000 square feet of working capacity, and will turn out 6,000 fur felt hat bodies per day.

EXPANSION



IN MARYLAND

Fairchild Aircraft Corporation at Hagerstown recently completed a plant enlargement program involving two buildings. Both expansions were attached to existing structures as shown in the photograph above.



IN MISSOURI

Missouri Farmers Association has this 70,000 ton per year chemical fertilizer plant underway at Joplin. The \$3,500,000 plant will produce phosphoric acid from which a wide range of fertilizers can be made.

Federal appropriations cuts to save South \$2.8 billions

By McLellan Smith

A STATE-BY-STATE breakdown of what the \$12.6 billion appropriations cuts by the new Administration and the 83rd Congress from the so-called Truman budget can now be tabulated to show that tax savings in the southern states will pass the \$2.8 billion mark by over \$41 million. The more nearly exact figure is \$2,841,300,000 which, by the way, is somewhat more than half the cost of the War Between the States, more often referred to as the Civil War.

The breakdown in the accompanying table shows the percentage of all Federal taxes borne by the people in each State. Application of that percentage to the \$12.6 billion savings in the 1954 appropriations, shows the effect on the future tax bills of the respective states.

In cutting \$12.6 billion of appropriations from the Truman budget for 1954, the Administration and Congress paved the way to substantial tax savings in the next few years and a balanced budget in the not-distant future. These cuts will naturally result in \$12.6 billion less in

Federal spending that the taxpayers will have to pay for in 1954 and later.

The reductions in appropriations cannot be expected to produce a similar reduction in 1954 from the Truman estimate of \$78.6 billion, mainly because a large part of the cuts from the Truman budget by the new Administration and Congress, such as for aircraft and heavy materiel of war, were scheduled for actual expenditure in 1955 or later rather than in 1954. Consequently, the savings from these cuts will not appear until 1955 or later.

Naturally, the ever-shifting international scene will have effects on Federal expenditures. Renewed fighting in Korea, the President's blunt warning that we would resist aggression in other parts of Asia, frictions in the West of Europe, are all factors which could kick all these savings into the ash can and start us on another round of spending and taxation which would puncture a statutory debt limit of even \$300 billion. It is to be noted, however, that our for-

eign policy has shifted from one of vacillating appeasement to one of a firmer note. This in itself may well serve to reduce our future tax burden as well as the public debt, interest on which now exceeds \$6.3 billion annually.

Looking to the future and toward a balanced budget, there are these factors of encouragement. The 1954 budget, if not upset by emergency appropriations between now and next June 30, calls for expenditures of \$61.2 billion, while Federal income for the fiscal year — after making allowances for the expiration of the excess profits tax at the end of this calendar year, the automatic reduction of individual income levies January 1, and the automatic corporate income tax reduction beginning next April 1—should be \$64.1 billion. This figure is arrived at by using fiscal 1953 revenue of \$69.6 billion as a base, and assumes that the national economy will continue at its present level. Thus, the budget could show a surplus of \$2.9 billion.

Future savings will doubtless come in the field of foreign aid, military and economic. The Truman request for the Mutual Security Aid Program was \$7.6 billion, but Congress cut this figure back to \$4.5 billion, and gave notice that funds for MSA would not be appropriated after fiscal 1956.

Other savings can be effected by injecting more efficiency into Government operations and weeding out policy making personnel who, for too many years, have conducted Federal affairs on the theory that extravagance was superior to economy when spending taxpayers' monies. Getting rid of the wasters is going to be a tough job—there are times when it seems easier to move a mountain than fire a bureaucrat.

The Following Table Shows the Percentage of All Federal Taxes Borne by the People in Each of the 16 Southern States and Applies that Percentage of the \$12.6 Billion Savings in Fiscal 1954 Appropriations

State	Percentage	Each State's Savings
Alabama .....	.96	\$ 120,960,000
Arkansas .....	.52	65,520,000
Florida	1.37	172,620,000
Georgia	1.33	167,580,000
Kentucky	1.05	132,300,000
Louisiana	1.07	134,820,000
Maryland	1.88	236,880,000
Mississippi .....	.50	63,000,000
Missouri	3.04	383,040,000
North Carolina	1.46	183,960,000
Oklahoma	1.01	127,260,000
South Carolina .....	.67	84,420,000
Tennessee	1.19	149,940,000
Texas	4.27	538,020,000
Virginia	1.47	185,220,000
West Virginia .....	.76	95,760,000
TOTAL, SOUTHERN STATES	21.55	\$ 2,841,300,000
Remainder of U. S., including D. C., Hawaii and Alaska	78.45	9,758,700,000
U. S. TOTAL	100.00	\$12,600,000,000

B. F. Goodrich Expanding Memphis Distribution Center

A \$120,000 brick and steel addition to The B. F. Goodrich Company's distribution center at 960 South Bellevue street, has been announced by Jay Harton, Memphis district manager for the company.

It is estimated tire storage facilities at the new unit will be increased to accommodate some 35,000 additional tires. The new unit will also contain enlarged rail and truck facilities. Over-all construction is being carried out according to specifications drawn up by the company's storage design and engineering department.

The present building was acquired by B. F. Goodrich in February, 1949. The new addition will increase warehouse area by 20,800 square feet, bringing the over-all warehouse area to more than 65,000 square feet.

Tires and auto and home supplies are stocked at the distribution center which presently serves the company's Memphis district. When the addition is completed in about four months the unit will also service the company's New Orleans district.

SOUTHERNERS AT WORK



Members of the Board of Trustees of the South Carolina Foundation of Independent Colleges. Standing, from left, John L. Pyler, James C. Kinard, R. C. Grier, Philip Covington. Seated, from left, M. W. Brown, J. C. Roberts, R. W. Spears and A. J. Eastwood.

South Carolina Foundation of Independent Colleges Organized

The accredited private colleges of South Carolina, envisioning a greatly enhanced service to higher education in the state, have joined together to organize the South Carolina Foundation of Independent Colleges, with a broad list of objectives, Dr. R. C. Grier, President of Erskine College, announced.

"A changing, growing South Carolina, involved in what amounts to an economic revolution, is placing ever-increasing demands upon its higher educational facilities," Dr. Grier, who is chairman of the group, said.

"Secondly, our nation is beset with subversive influences which threaten the American system of free enterprise, a system which the free and independent private college has served to protect throughout our country's history.

"To meet these two challenges as far as our state is concerned, the independent colleges of South Carolina have joined hands and formed a united front to strive in concert for common goals."

He said nine colleges have joined the Foundation and approved its constitution. These are: Presbyterian College, Clinton; Wofford College, Spartanburg; Converse College, Spartanburg; Newberry College, Newberry; Furman University, Greenville; Coker College, Hartsville; Limestone College, Gaffney; Columbia College, Columbia, and Erskine College, Due West.

The Foundation, which has been incorporated with a charter, has adopted the following seven initial objectives:

To enhance and foster the historic role of the independent college in teaching the basic philosophies upon which the American system of free enterprise is

founded, as a means of meeting the growing threat of subversive influences to American ideologies.

To assist in preparing the people of South Carolina for the economic and social changes attendant upon recent industrial development through instruction based upon study of the probable effect of such development.

To develop existing research facilities of the independent colleges to a point commensurate with the growing needs of industry and the public generally as a result of industrial development.

To demonstrate the vital link between business and industry and education, by developing the facilities of the independent colleges as a "meeting ground" between these, through campus seminars, liaison projects, and special courses of instruction.

To strengthen classroom curricula with respect to the function of preparing youth for management leadership.

To increase of the independent colleges in cultural endeavors, with a view to encouraging greater public appreciation of the fine arts as a concomitant development with increased per capita income.

To strengthen and preserve the private colleges as centers for independent thinking under the Christian influence.

To help accomplish these goals, the Foundation will seek funds from private donors and from business and industry, Dr. Grier said. This fund-raising activity, however, will not interfere with funding programs in progress in the individual colleges, he said. Also, gifts may be made to the Foundation for presentation to a chosen college, if desired.

One of the outstanding purposes of the Foundation will be that of meeting the challenge of changing conditions in South Carolina, the Chairman said.

"A mere glance at the economic picture in our state reveals that enormous changes are taking place and will continue to occur for many years to come," he pointed out. "We are on the way toward becoming one of the great industrial states, whereas a few years ago we were entirely an agricultural society. The income of our people is increasing by leaps and bounds. This has altered the very face of our state and changed the manner of living of its people.

"Obviously, the role of the private colleges must be enhanced, and their service to the people increased," he added.

Baltimore & Ohio Names Simpson, President

Howard E. Simpson, executive vice president of the Baltimore and Ohio, was elected president at the regular monthly meeting of the Board of Directors held on Aug. 19. The election was effective September 1. Mr. Simpson succeeds Colonel Roy B. White, who has been president of the B & O since June 1, 1941, and who was elected chairman of the Board.

Colonel White and Mr. Simpson have had closely related business careers, both in their work with B & O affiliates and with the parent property, since 1926. It was in that year that Colonel White was elected senior vice president of the Central Railroad of New Jersey. Mr. Simpson was then division passenger agent of the same line, with headquarters in Newark, N. J. He had started with the Central as a clerk in the passenger department in 1912 and had been continuously employed in that department, save for the period of his service in the Navy during the first World War. Following his return to the Central in 1919 as rate clerk, he was promoted to general eastern passenger agent of the road with headquarters in New York, in 1926, and then to assistant general passenger agent.

In 1931, Mr. Simpson came with the Baltimore and Ohio at New York as general eastern passenger agent and in 1936 became assistant to the general passenger traffic manager at headquarters in Baltimore. In 1941, he was promoted to the position of assistant general passenger traffic manager and in 1944 to general passenger traffic manager, the top position in that department.

Two years thereafter, in a move that was unusual, if not unique, in recent railroad history, Mr. Simpson, a passenger department man during his entire railroad career, was promoted to assistant vice president in charge of traffic. This widened his scope on the B & O to include freight as well as passenger traffic. Baltimore and Ohio freight revenues that year were seven times the passenger

(Continued on page 40)

Southerners

(Continued from page 39)

revenues, and the ratio has now increased until they are fifteen times as large. In 1947, on the retirement of the incumbent traffic vice president, Mr. Simpson was elected to this position.

On September 1, 1952, he was elected executive vice president. This was a new post on the Baltimore and Ohio and since the appointment has given Mr. Simpson supervision over all railroad activities.

Ingalls Names Warnock to Birmingham Tank Post

Robert I. Ingalls, Jr., chairman of the board, The Ingalls Iron Works Company, Birmingham, Alabama, has announced the appointment of Robert B. Warnock in charge of sales of the Birmingham Tank Company Division.

A native of Tulsa, Oklahoma and a mechanical engineering graduate of Georgia Institute of Technology, Mr.



Robert B. Warnock

Warnock has a wide acquaintanceship in the petroleum and petrochemical industry.

Following his graduation he was employed as an engineer by the Douglas Aircraft Company. After a four-year stint in the Navy, Mr. Warnock joined The Texas Company organization as an industrial sales engineer.

Mr. Warnock will make his headquarters at the executive offices of The Ingalls Iron Works Company in Birmingham.

Goodyear Names Kiel Chief Chemist at Gadsden

Appointment of E. W. Kiel to chief chemist of The Goodyear Tire & Rubber

Company's plant in Gadsden, Ala., was announced on Aug. 14.

Kiel moves to Gadsden from Jackson, Mich., where he is being replaced as chief chemist of Goodyear's plant by M. G. Atkinson.

The changes are announced by Dr. R. P. Dinsmore, vice president in charge of research and development.

Kiel joined Goodyear as a factory office trainee here in 1941. He subsequently served in Akron as physical laboratory operator and junior development compounder before moving to Gadsden in 1947 as development section head. He was transferred to Jackson as chief chemist in 1948.

Kiel was born in Cottonwood, S. D., and was graduated from South Dakota School of Mines with a bachelor of science degree in chemical engineering.

Atkinson hails from Jackson, Mich., and has spent his entire Goodyear career there since joining the company in 1937.

He has held a number of important chemical assignments and in 1945 was promoted to compounder, serving in that capacity until taking over his new duties as chief chemist.

Atkinson was graduated from Michigan State College with a bachelor of science degree in chemistry.

Norfolk & Western Names John L. McCown, Cashier

John L. McCown has been named cashier of the Norfolk and Western, effective immediately, it was announced on Aug. 10 by Treasurer S. P. Chockley.

McCown had filled the job of pay clerk for the railroad since he was promoted on July 1. In his new post he succeeds B. V. Michel, Sr., who died July 11.

The new cashier entered railroad service in May, 1937 as messenger, and held several clerical posts until his July promotion. Succeeding him as pay clerk is Miss Mary Callanan, who has been in the Treasurer's Office since first joining the railroad in April, 1917.

National Container Corp. Announces Personnel Changes

National Container Corporation, through W. T. Webster, vice president and head of all mill operations, announces the following appointments and personnel changes at its Jacksonville (Fla.) Mill Division and its Valdosta (Ga.) Mill Division.

Karl M. Guest, the former plant manager at Jacksonville, is named plant manager at Valdosta.

J. E. Mailhos, formerly plant engineer at Jacksonville, is designated plant engineer at Valdosta. He is succeeded by R. V. Pennington as engineer with the Valdosta construction organization.

H. M. Burnette, the former maintenance superintendent at Jacksonville, is transferred to be maintenance superintendent at Valdosta. His successor is R. E. Adams, construction engineer at Jacksonville.

William J. Miles, the former master mechanic at Jacksonville, is named master mechanic at Valdosta. His successor is E. Anderson, assistant master mechanic at Jacksonville.

R. K. Funderburk will be assistant master mechanic at Jacksonville.

The \$25,000,000 Valdosta Mill, for the manufacture of kraft pulp, board and paper, now in the latter stages of construction, is expected to be in operation during the last quarter of this year. National Container Corporation operates 19 kraft box converting plants and five kraft pulp board and paper mills in various parts of the country.

Aeronautical Electronics, Inc. Names Bunn, Treasurer

Julian W. Bunn, Jr., of Raleigh, N. C., has been elected treasurer of Aeronautical Electronics, Inc., a Raleigh-Durham airport firm, according to an announcement made on August 22, by C. R. Brown, president of the firm.

Mr. Bunn's appointment was made during a recent Board of Directors meeting. In addition to his work as treasurer, it was announced that he has accepted a position with Aerotron, trade name for the organization, in the capacity of manufacturing and production engineer. His duties will include the design and development of various types of machines and equipment for use in the manufacture of quartz radio crystals, the principal product of Aerotron's manufacturing division.

Mr. Bunn has an extensive and outstanding background in the field of engineering. He is a registered engineer, a member of the National Society of Professional Engineers of North Carolina, and an Associate Member of the American Society of Heating and Ventilating Engineers.

Celanese Corporation Advances Alex Rose

Alex Rose, manager of the Rock Hill, South Carolina, acetate yarn plant of Celanese Corporation of America, has been elevated to the new position of director of engineering of the textile division of the company, K. C. Loughlin, vice president and general manager of the division, announced recently.

John P. Loud, who has been special assistant to the plant manager of the Cumberland, Maryland, plant was named to succeed Mr. Rose as plant manager of the Rock Hill unit. Both appointments are effective immediately.

Mr. Rose joined Celanese Corporation of America in 1941, performing various engineering duties at the Narrows, Virginia, plant until 1946. In that year he was transferred to the central engineering department in New York City as project engineer in charge of construction of the Rock Hill plant.

Upon completion of the Rock Hill plant Mr. Rose was named plant engineer in 1948, and plant manager in 1952.

PORT ACTIVITY

ALABAMA Mobile

June Traffic Up—Alabama State Docks and Terminals handled a total of 424,371 tons of Traffic in June, the most in over five years and fifty-two per cent more than in June 1952. Traffic through the State Docks was consistently above the year-ago level during the first half of 1953 and the total tonnage handled in the first six months of the year topped the corresponding 1952 figure by 16 per cent.

Inbound traffic in June amounted to 350,312 tons, an all-time high. Products of mines accounted for 84 per cent of the inbound tonnage, while 14 per cent was manufacturers and miscellaneous products, 2 per cent products of forests, and a fractional percentage products of agriculture. Inbound shipments in the January-June period totaled 1,743,014 tons, 28 per cent more than in 1952.

Outbound tonnage showed an 81 per cent gain over June 1952, but the year-ago figure was unusually low because of the steel strike. Over half (51%) of the June outgoing shipments were manufacturers and miscellaneous with 26 per cent products of mines, 21 per cent forest products, and 2 per cent agricultural products. In spite of the large increase, outbound traffic in the first half of 1953 was 19 per cent below a year ago.

Ingalls Builds Mariner—Three more Mariner-type dry cargo ships scheduled for delivery during August the National Shipping Authority, Maritime Administration, U. S. Department of Commerce, recently announced.

The ships will be assigned to private American steamship companies acting as general agents for the government.

One of the three—the S. S. Cotton Mariner—was built by the Ingalls Shipbuilding Corporation for assignment to the Luckenbach Gulf Steamship Co., New York.

Ore Shipments at High Level—Ore shipments through Alabama State Docks during recent weeks has boosted shipping to the highest level of the fiscal year.

Docks General Manager, Jerry P. Turner, has reported 425,688 tons of various ores were handled during this past June as compared with 279,234 tons in June, 1952.

According to Turner, since the start of the current fiscal year last Oct. 1, movements through the state-owned terminal have been running consistently ahead of the same month a year ago.

For the first nine months of this fiscal year, shipping has amounted to 3,417,699 tons, or almost 700,000 tons ahead of the 2,756,470 tons handled for the corresponding period last fiscal year.

The Docks general manager said that while all departments of the state-owned terminal have been registering gains, the biggest boosts in tonnage have been through the bulk material handling plant, where a 1½-million-dollar-improvement program was recently completed.

That facility handles bauxite, manganese, iron and chrome ores, and nitrate of soda inbound, and coal, coke, ferro-phosphorous and other bulk items outbound.

FLORIDA Jacksonville

Consular Appointments—Appointments of consular representatives at Jacksonville for the governments of Brazil and Paraguay were announced recently.

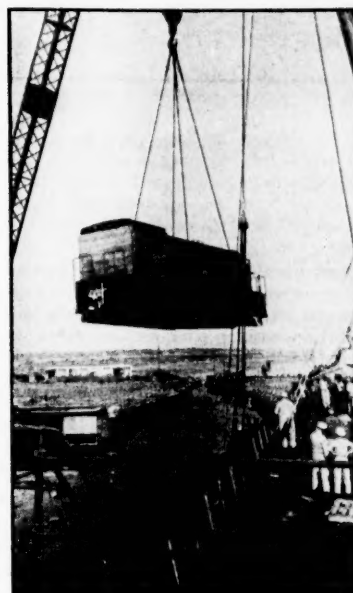
They bring to seventeen the number of nations officially represented at this growing port.

The new Brazilian consul will be Clivis Nogueira Silva, who is scheduled to report soon to assume his duties. He will fill the vacancy created early this year with the passing of Dr. H. O. deMiranda.

Henry W. McMillan, chief of the collections unit in the Internal Revenue office at Jacksonville was named honorary vice consul representing Paraguay. He will be available for consular activities through contacting him at the Federal Building. McMillan was stationed at Paraguay for an extended period during World War II and is thoroughly versed in the economy and social conventions of the nation.

LOUISIANA New Orleans

Foreign Trade Balanced—Tonnage of foreign trade through New Orleans during the first three months of 1953 was up



8% over the first three months of 1952. Total foreign tonnage for the first quarter of 1953 amounted to 2,320,000 tons: 965,000 tons of exports and 1,355,000 tons if imports. This 8% increase compares with a national decrease of 15% in imports and exports combined.

However, the value of foreign commerce through New Orleans (\$357,600,000) was down 22% for the quarter against a national decrease of 17%. Of this exports were worth \$179,200,000 and imports \$178,400,000. New Orleans remained the second port in the nation in value of both imports and exports, and ranked fourth in tonnage of world trade.

New Orleans' import tonnage was up 47% over the first quarter of 1952, it was announced. Only port to show a greater increase in import tonnage was Los Angeles, up 132%. The national average showed an increase of 15%.

On the export side, the nation's tonnage was off 41% while export tonnage through New Orleans fell only 22%. Only U. S. ports to show an increase were Port Arthur (up 38%) and Los Angeles (up 5%).

Grain Exports Up—A record 43 ships cleared the Public Grain Elevator during July. These 43 ships clearing the Grain Elevator were bound for 14 countries. 9 were going to Germany, 8 to Holland and 7 to Mexico. The rest went to other European countries and to Egypt, Formosa and Japan.

Total grain exports for the month of July came to 8,525,000 bushels, it was further reported by Capt. A. A. Clarkson, Manager of the Public Grain Elevator. "Last year during July we exported 6,881,000 bushels—and 1952 was an outstanding record year. Looks as though this may be another," he said. Wheat exports during this July accounted for 5,026,000 bushels, corn 2,537,000 bushels and soybeans 962,000 bushels.

(Continued on page 42)

PORT ACTIVITY

(Continued from page 41)

During July 83 barges and 2985 railroad cars delivered grain to the elevator, Clarkson reported. Figures were based on reports from New Orleans Board of Trade, Ltd.

Port Packing Facilities—Five hundred uncrated tractors have arrived in New Orleans over the past six weeks for scientific export packing, according to J. H. Boyd, manager of Foreign Trade Zone No. 2 and Public Commodity Warehouse in New Orleans. They are the first part of a new continuous export movement through this port of agricultural parts from the Midwest. The manufacturers used to pack their tractors and other equipment for export themselves, and route them to various ports.

Tractors are only one of many products well adapted to packing at the port of exit. Since 1946 two firms have specialized in export crating in New Orleans and everything from toys to trucks and egg factories to swans have passed through their hands for special packing. As shippers watch freight rates closely more and more of them are using the services of these packers.

Latin American Imports — Over 78% of imports through the Port of New Orleans during 1952 came from Central and South America, E. H. Lockenberg, General Manager for the Board of Commissioners of the Port, announced early this month. "Our prosperity in New Orleans is due largely to our Good Neighbors to the South," Lockenberg said, referring to imports during 1952. Over 57% of imports were from Central America.

"Exports are another story," Lockenberg stated. "Here our prosperity depends more on Europe." Nearly half of our export cargo during 1952 went to Europe, he said, and 30% to Central and South America.

Analyzing 1952 trade figures through the port as given by the U. S. Department of Commerce Lockenberg noted a 7% rise in imports over 1951 to a total of 3,883,327 tons. Export tonnage was 4,835,439 tons—about the same as in 1951.

More import tonnage was from Cuba than from any other nation. Total was 1,484,847 tons, of which raw sugar accounted for 1,039,256 tons. Imports from Cuba were up 25% over 1951. Sugar is New Orleans' biggest import tonnage-wise.

Another American nation supplying great import tonnage to New Orleans was Surinam (Dutch Guiana) with 308,428 tons, primarily bauxite from which aluminum is made. This represents a 262% increase over 1951 imports from Surinam. Bauxite also came from Trinidad and Tobago; these two countries provided a total 194,000 tons of import cargo.

Ecuador provided 208,216 tons of import cargo, mostly bananas. This was a 78% increase over 1951 imports. Bananas also came from Honduras, with total imports of 167,813 tons from this country.

New Thalia Street Wharf—Construction of the new Thalia Street Wharf started on Sept. 2 with Harry S. Hardin, Sr., president of the Board of Commissioners of the Port of New Orleans, driving the first piling. The new \$2½ million, general cargo wharf will close

the last remaining gap on the east bank of the river between the Industrial Canal and the Public Grain Elevator.

Hardin stated that construction of the Thalia Street Wharf is but a forerunner of further port expansion. "We must complete some of these new wharves in order to accommodate the demands of shipping when we begin to remodel and reconstruct a number of our old wharves," stated Hardin.

Chief engineer for the Port, J. A. McNiven, said the wharf will be 900 ft. long and 230 ft. wide, including a 28 ft.-wide apron on the riverside, and a 30 ft.-wide roadway on the landside. A wharf shed 172 ft. wide will cover the remaining area.

The wharf will be of non-combustible construction consisting of structural steel framing on a concrete foundation. This will be supported on creosoted pilings cut off at the water level.

"The shed itself," said McNiven, "is of a more modern design than any of our other sheds; we are utilizing only one row of columns in the center of the shed, rather than two or more rows as heretofore. This, of course, allows greater cargo handling maneuverability."

The new wharf will be completely fireproof with sprinkler and standpipe systems, hose connections and other necessary fire prevention facilities.

President of the Board Hardin pointed out that the New Orleans Public Belt Railroad will serve the new wharf as it does the other public wharves.

Baton Rouge

Port Progress Report — The Baton Rouge Chamber of Commerce reports that efforts to establish a major deep-water port in the Greater Baton Rouge area, are in mid-effort now, and spokesmen for the Greater Baton Rouge Port Commission expect them to reach a crucial stage by late fall.

The Commission was established a year ago this past August as a state agency with statutory authority to establish such a port in the area. The Legislature gave it a one-time appropriation of \$200,000 last summer and added \$100,000 to this at the recent special session after a hard fight. The Commission has authority to issue up to \$15,000,000 in revenue bonds to finance construction. Its authority was given Constitutional status by vote of Louisiana citizens last November.

Engineering Report—Prior to activation of the Commission, the City of Baton Rouge obtained the Knappen engineering and economic report, which rated Baton Rouge high as a port possibility and blue-printed a suggested procedure for getting a port, including the setting up of a state agency. Unfortunately,



Driving first pile—Thalia Street Wharf. Harry S. Hardin, Sr., president of the New Orleans Port Commission and Henry Boh, partner, Boh Bros. Construction Co.

PORT ACTIVITY

Baton Rouge interests couldn't get all from the State which Knappen urged—a steady \$500,000 yearly income from gasoline tax.

In its first year of existence, the Commission has conducted all the preliminary work to locate the site; has conducted negotiations with numerous potential users of special facilities proposed for the port in order to get the income needed to pay off bonds, and has had engineers at work on the master plan and economic justification report. It also has negotiated with railroads to establish a port terminal railway, and attorneys are drafting an I.C.C. application to put this rail plan into effect.

The main stumbling block has been land acquisition. The Commission sought the West bank site below Port Allen, as recommended by Knappen. However, the five land owners at the site have refused offers for their property (except the owner of a one-third interest in one tract). The Commission has sued one owner and obtained a court decision of \$569 per acre, which is being appealed.

A commission spokesman said the board is now trying to negotiate with other owners in the area to obtain the needed land at a "reasonable price."

Financially the Port Commission now has enough money to buy a site and operate for one and one-half to two more years.

MARYLAND

Baltimore

Vessel Arrivals Continue High—Arrivals of ocean-going shipping at the Port of Baltimore during July were at a near record high of 441, according to the Maritime Exchange. Vessels calling at the Port last month were 39 in excess of the number reported in June and exceeded those in July, 1952, by 105. Vessel traffic during July was divided between 204 ships of American registry and 237 of foreign nationality. Among the latter were 46 Norwegian, 25 British, 22 Panamanian, 20 Swedish, 18 Italian, 17 German, 13 Danish, 12 Greek, 12 Japanese, 11 Dutch, 8 Honduran, 6 French, 4 Canadian, 4 Finnish, 4 Liberian, 3 Cuban, 3 Yugoslavian, 2 Argentine, 1 Belgium, 1 Iranian, 1 Irish, 1 Philippine, 1 South African, 1 Spanish and 1 Venezuelan.

Total vessel arrivals in the first seven months of the year have reached 2,863, or 181 more than the number in the corresponding period of 1952.

July Coal Exports Moderate—Export coal shipments from Baltimore last month amounted to 115,139 long tons on 14 vessels, compared with 134,092 tons on 17 ships in June and 131,052 tons on 19 vessels during July, 1952.

Five countries participated in the movement of this commodity from the

Port during July. Germany received 69,225 tons, Japan 29,570 tons, Italy 9,997 tons, the Netherlands 5,833 tons and Chile 514 tons.

In the seven months of this year, 854,749 tons of coal have been shipped overseas from Baltimore contrasted with 1,915,443 tons in the comparable period of last year.

C&D Canal Transits Set Record in July—A new monthly record of vessel transits to and from Baltimore via the C&D Canal was established in July. It marked the second time this year that Port vessel traffic utilizing the waterway was in greater volume than any previous monthly period since its opening in 1939 as a deep-draft ship canal.

Data compiled by canal officials shows a total of 401 ships used the inland route to and from the Port last month. This exceeded the previous record set in May, 1953, by 28 vessels.

The July ship movements compare with 313 in June, 18 in July of last year and 321 in the same month of 1951. Of the total number of vessels reported last month, 205 were westbound through the canal to Baltimore, while 196 moved eastward from the Port.

Thus far this year, a total of 2,265 ships have transited the waterway to and from the Port in contrast with 1,361 in the seven months of last year and 2,006 in 1951.

Offshore Grain Shipments Continue Apace—Grain exports at the Port of Baltimore continued in good volume during July, and for the second consecutive month exceeded shipments in the corresponding month of 1952.

The 6,847,800 bushels shipped overseas last month were 1,396,286 bushels less than the volume moved through the Port in June, although it was an increase of 5,226,699 bushels over the July, 1952 exports. Included in the July, 1953, shipments were 2,689,833 bushels of wheat, 4,135,100 bushels of corn and 22,867 bushels of barley. Grain exports for the first seven months of the year total 42,916,236 bushels against 51,814,222 bushels in the corresponding period of 1952.

Bethlehem Launches Tanker—A 29,000-deadweight-ton tanker for the Orion Shipping and Trading Company was launched August 19 at 1:00 P.M. at the Bethlehem-Sparrows Point Yard. The vessel, sponsored by Mrs. Francis C. Denebrink, wife of Admiral F. C. Denebrink, Commander, Military Sea Transportation Service, was christened the S. T. "Orion Star."

The ship is 645 feet long, has an 84-foot beam, and a speed in excess of 16½ knots. Cargo-carrying capacity is 254,800 barrels of crude oil. Keel for the vessel was laid last November 3.

Two New Lines For Port—Baltimore's world-wide shipping services are being improved this month by the addition of

two new operations to Belgium and Guatemala and Honduras.

New service to Antwerp was initiated by the Belgian Line with the sailing of the steamer "Vinkt" from the Port on August 6. She was followed by the "Tervaele" on August 17. Both ships loaded cargo at Pier 5, Locust Point. Each is equipped with refrigerated space for the transportation of perishables.

Regular sailings from Baltimore to Puerto Barrios, Guatemala and Puerto Cortez, Honduras were established by the Caribbean Line on August 18 with the clearance of the steamer "Lapland." This vessel also took cargo at Pier 5 of the Baltimore and Ohio Railroad terminal at Locust Point. The company advises that all ships operated in this service will accept cargo for El Salvador for transshipment at Puerto Barrios.

The Penn-Maryland Steamship Corporation, Keyser Building, are Baltimore agents for both these new services.

New Port Directory—The first comprehensive directory of the Port of Baltimore is now being distributed by the Export and Import Bureau of the Baltimore Association of Commerce.

The new publication, the first of its kind compiled for any port, presents a complete listing of all maritime interests in Baltimore. In addition to commercial firms of all types with a port interest, the book contains essential information on all governmental agencies concerned with local shipping activity. New telephone numbers also are carried.

A companion piece to the Port of Baltimore Handbook and the Port of Baltimore Guide, the Directory cover features the State of Maryland colors. In addition to furnishing the name, address and telephone number of maritime interests, the Directory further supplies the names and positions of key personnel and night telephone numbers where such calls are desired. The Directory is of convenient desk size, 6" by 8", and features a plastic binding for long utility.

The Directory is classified, with business firms divided into categories descriptive of their operations. Listings of both categories and firms are alphabetical. In addition to a table of contents, the new Directory carries a complete personnel index for cross reference.

Western Maryland to Install New Grain Unloader—The Western Maryland Railway is preparing to install a new pneumatic grain unloader at their Port Covington grain pier in the Port of Baltimore. The new facility will be in operation by the end of this year.

The new unloader will have a capacity of 5,000 bushels per hour, which will enable it to unload a cargo of 220,000 bushels in five to six regular working days. Also, a new 2,500-bushel sucker will be installed on the inshore end of the pier.

(Continued on page 44)

PORT ACTIVITY

(Continued from page 43)

These facilities are expected to alleviate barge demurrage encountered from time to time by operators of bay boats and other small craft.

Baltimore, with three elevators of over 12 million bushels capacity, has what are believed to be the finest grain loading facilities at any United States seaboard port. However, there has been a lack of suitable equipment for the unloading of grain from vessels. The new Port Covington unloading system will permit the discharge of full cargo ships when such a need arises.

SOUTH CAROLINA Charleston

Revenue from State Docks Exceeds \$1,000,000—According to Cotesworth P. Means, Chairman of the South Carolina State Ports Authority, revenue from the operation of the state dock system at Charleston during the past fiscal year, exceeded \$1,000,000 for the first time.

The total for the year ending June 30, was \$1,052,271, up \$60,000 from the year before, and more than double the \$496,352 of five years ago.

However, expenses of \$1,191,750, left an operating deficit of \$139,478 for the year, not including depreciation. Including depreciation, the total deficit is some \$2,000 less than the previous year, and approximately \$50,000 less than five years ago.

Newspaper Reports on Port's Growth—In a special feature article in its July 28 issue, the New York Journal of Commerce had this to say about the port of Charleston: "New facilities estimated to cost between \$8 and \$10 million are under current consideration by the Port of Charleston, S. C., which has set its sights on a major expansion of its shipping facilities to keep pace with the remarkable growth in waterborne commerce that has taken place during the past six years.

"These will include a modern marginal pier, backed by extensive warehouses, that will add several general cargo berths and much needed waterfront storage capacity to the port.

"The need for these additions to the dock system operated by the State Ports Authority is under active study by a special committee appointed by the legislature while at the same time, J. E. Sirrine Co., Greenville, S. C., engineering firm, is drawing up plans and specifications for the improvements. They are to be jointly financed by State appropriations and a revenue bond issue.

"Work also is to begin soon on an expansion of the State Authority's liquid chemical storage and handling facilities to be financed by a recently approved Reconstruction Finance Corp. loan.

"These projects represent the latest additions to a series of port improvements which is giving a 'new look' to Charleston's waterfront."

Chemical Facilities To Be Expanded—Construction will begin shortly to more than double the capacity of the South Carolina State Ports Authority's storage and distribution facilities for liquid caustic soda brought to Charleston in tankers from Texas.

Contract awards are to be made this month to build a 635,000 gallon nickel lined steel tank and other facilities for handling the industrial chemicals used by textile and paper mills of the Southeast.

It will be financed with a \$400,000 loan from the Reconstruction Finance Corporation. The Ports Authority operates the facilities under lease to Dow Chemical Company.

TEXAS Houston

Passenger Service Proves Popular—Regular passenger service from Port Houston is off to a good start on its first venture since before World War II.

The Pan-Atlantic Steamship Corporation, which operates three 10,500-ton cargo ships in the service which started here June 11, completed its first four runs out of Houston early in July with about 70 per cent occupancy, according to Fred W. Perry, local manager.

Pan-Atlantic's SS Afoundria, SS Azalea City and SS Wacosta each handle twelve passengers, in six double staterooms, with private baths. The facilities include a sizable promenade deck and two lounges.

As one of its vacation possibilities, the line offers a trip in which passengers leave Houston at noon Saturday, arriving in Jacksonville, Fla., the next Friday morning. They may get off the ship there, travel overland to Miami, board a southbound vessel the following Monday, and reach Houston at noon Thursday.

Pan-Atlantic is the coastwise division of Waterman Steamship Company.

Port Commission Seeks \$18 Million—The Port Commission voted July 30 to ask the Commissioners Court to submit three port bond issues totaling \$18,000,000 in a special election early in September.

Earlier in the year, \$3,500,000 had been proposed for the construction of new wharves, but now the authorization of \$7,000,000 in bonds will be asked in the election.

The largest amount sought in the proposals—\$9,500,000—would be used to purchase Long Reach Terminal for a price of \$9,000,000, while the remaining half-million would be used for buying new operating equipment.

The \$7,000,000 would be used for construction of new wharves on the Ship Channel's north side on property bought from Houston Endowment, Inc.

The remaining \$1,500,000 of the \$18,000,000 would be used for an open-type wharf for loading and unloading of grain transported by barge. The wharf would have a marine leg for this purpose.

Study is now being conducted on the proposed wharves, which would be the most modern available for handling dry cargo. Also, covered warehouse space and railroad connections are being considered.

If the taxpayers of the county approve the proposals in the special election, the \$18,000,000 in bonds would be issued as the money is needed, the commission members pointed out.

Dow Chemical Dedicates Texas Research Center

Dedication of a new \$2,600,000 research center at The Dow Chemical Company's Texas Division in honor of Dr. William Reed Veazey, recently retired Dow director and research consultant, is announced by Dr. Leland I. Doan, company president.

The research center, which has been under construction at Freeport, Texas, for more than a year, will be completed in September and it will be formally dedicated to Dr. Veazey at a meeting of the general research committee there in October.

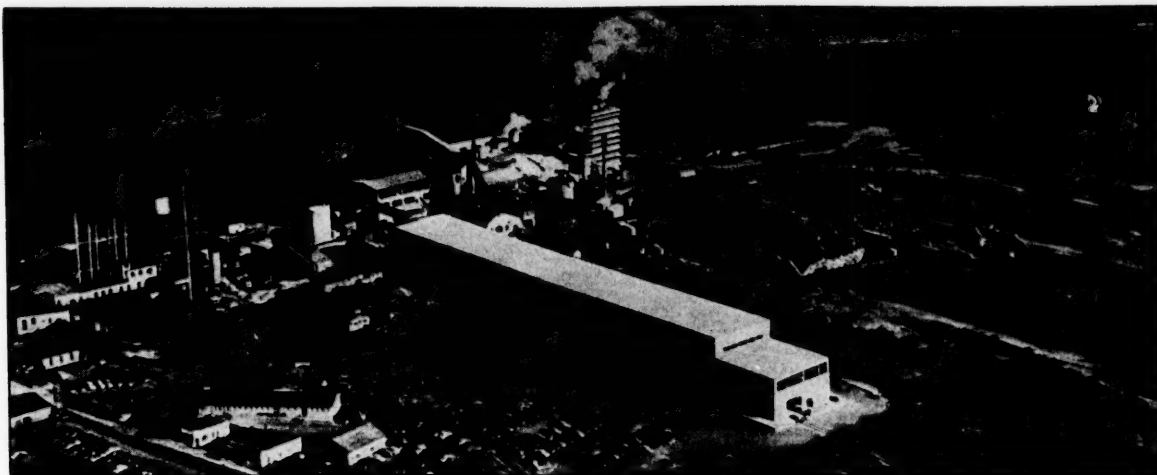
In its 69,000 square feet of space, the research center will house the Texas Division's organic, chemical engineering and electrochemical research as well as the analytical laboratory, according to Dr. A. P. Beutel, company vice-president and Texas Division general manager. It will also include research administrative offices, a patent office and a library.

Dr. Veazey, who retired last June after 37 years of association with Dow, turned the first earth for the research center in May, 1952, with a spade made from magnesium produced from sea water.

For 26 years a member of the Board of Directors, Dr. Veazey began his association with the company in 1915 when he undertook special research work in magnesium. At the time he was an assistant professor at the Case School of Applied Science, now Case Institute of Technology, in Cleveland.

In 1916 he headed a developmental group which succeeded in producing the first pound of magnesium metal ever made in the United States.

Dr. Veazey remained on the Case staff until 1936, meanwhile continuing special Dow work. That year he resigned as head of the Case department of chemistry and chemical engineering to join Dow permanently in Midland.



Above—Aerial view of Halifax Paper plant recently expanded at a cost of \$5,800,000. Rust Engineering Co., of Pittsburgh and Birmingham, was the engineer and contractor.

Southern Construction Set at \$283,987,000

SOUTHERN construction totaled \$283,987,000 in August, a decline of less than one per cent from the figure for the preceding month.

The average monthly total for the year so far, in which an accumulation of \$2,622,197,000 in contracts has been recorded, is \$327,774,000.

August's \$283,987,000, the second lowest monthly figure for the year, is made up of \$85,879,000 for public building; \$80,986,000 for private building; \$47,966,000 for heavy engineering construction; \$42,573,000 for highways and bridges and \$26,583,000 for industrial projects.

The \$85,879,000 for public building in August is four per cent larger than the average monthly figure for such work in the elapsed months of the year. However, it is three per cent below the total for public building for the preceding month but twenty-seven per cent above

the total for August of 1952.

Components of the August public building total are \$45,920,000 for government work; \$39,959,000 for schools. Government building excluding the schools, rose sixteen per cent from the July level and was nine per cent above the figure for similar work in the eighth month of last year. School building in August dropped twenty per cent from July but was forty-four per cent larger than the total for schools in August of 1952.

Private building, with its \$80,986,000 total, showed the substantial gain of twenty-eight per cent, when compared with the preceding month. The current August total was also up—twenty-seven per cent—above its counterpart for the same month of last year. The monthly average for private building this year is \$67,336,000.

The private building figure includes

\$38,656,000 for residential work; \$19,631,000 for office building; \$12,713,000 for assembly building and \$9,986,000 for commercial building. Two showed increases; the other two represented declines.

Residential construction's \$38,656,000 was up fifty-one per cent above the July figure for residential work, as well as five per cent up from the figure for August of 1952.

Office building in August was up precipitously. The rise was ninety-two per cent. Last year in the same month the total for office building was \$6,224,000.

Assembly building and commercial building dropped in August; the first twenty-seven per cent; the second, one per cent. The \$12,713,000 for assembly building is also down from the figure for August of last year—twelve per cent. August's \$9,986,000 commercial building total, however, is up fifty-one per cent when compared with the value of such work in the same month of 1952.

Heavy engineering construction was up four per cent in August, when compared with the figure for the preceding month. The \$47,966,000 total, however, was considerably down from the total in August of last year. The drop was forty-six per cent.

Current heavy engineering includes \$24,808,000 for sewer and water work; \$15,885,000 for dams, drainage, earthwork and airports and \$7,273,000 for government electric projects. Sewer and water work was the only category showing a rise. This was fifty-two per cent.

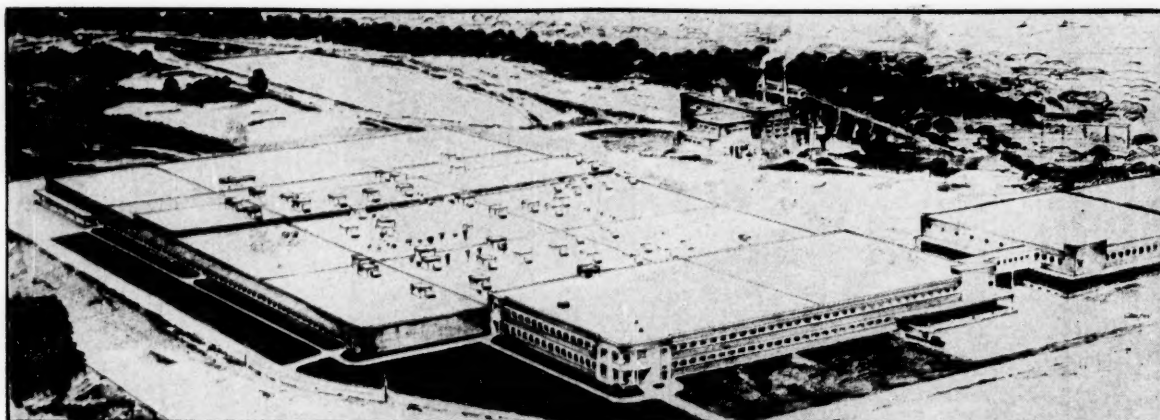
Industrial construction continued at ebb pace during the month. The \$26,583,000 total was just a slight advance over the value recorded in the preceding month. Together with the January figure, the last two months' totals represented the low points of the year.

Highway construction, with its \$42,

(Continued on page 46)

SOUTH'S CONSTRUCTION BY TYPES

	August, 1953 Contracts Awarded	August, 1953 Contracts to be Awarded	Contracts Awarded First Eight Months 1953	Contracts Awarded First Eight Months 1952
PRIVATE BUILDING				
Assembly (Churches, Theatres, Auditoriums; Fraternal)	\$12,713,000	\$16,310,000	\$70,002,000	\$63,701,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	9,986,000	16,553,000	69,420,000	34,722,000
Residential (Apartments, Hotels, Dwellings)	38,656,000	21,532,000	303,292,000	425,202,000
Office	19,631,000	14,374,000	95,994,000	29,515,000
	\$80,986,000	\$68,769,000	\$338,708,000	\$553,140,000
INDUSTRIAL	\$26,583,000	\$113,115,000	\$551,006,000	\$2,132,529,000
PUBLIC BUILDING				
City, County, State, Federal, and Hospitals	\$45,920,000	\$71,576,000	\$321,028,000	\$499,291,000
Schools	39,959,000	53,569,000	339,591,000	216,731,000
	\$85,879,000	\$125,145,000	\$660,619,000	\$716,022,000
ENGINEERING				
Dams, Drainage, Earthwork and Airports	\$15,885,000	\$22,270,000	\$239,860,000	\$349,598,000
Federal, County, Municipal Elec- tric	7,273,000	10,329,000	71,436,000	91,490,000
Sewers and Waterworks	24,808,000	6,199,000	117,564,000	100,988,000
	\$47,966,000	\$38,798,000	\$428,860,000	\$542,076,000
ROADS, STREETS, BRIDGES . . .	\$42,573,000	\$94,938,000	\$443,004,000	\$475,819,000
TOTAL	\$283,987,000	\$440,765,000	\$2,622,197,000	\$4,419,586,000



Addition, 800 feet long and 130 feet wide, planned at the Grace Bleachery of Springs Cotton Mills, Lancaster, S. C.

(Continued from page 45)

573,000 total in August, was at the second lowest point of the year, being thirty per cent below the level established in the preceding month.

Contracts in the first eight months of 1953 amount to \$2,622,197,000, or forty per cent under the total for the comparable period of 1952. Included in the current total are: \$660,619,000 for public building; \$551,006,000 for industrial projects; \$538,708,000 for private building; \$443,004,000 for highways and bridges, and \$428,860,000 for heavy engineering construction.

Last year at this time, the five major categories of southern construction, as tabulated from the *Manufacturers Record daily construction bulletin* were: Industrial, \$2,132,529,000; public building, \$716,022,000; private building, \$553,140,000; heavy engineering construction, \$542,076,000, and highways and bridges, \$475,819,000.

The current eight months' private building figure was made up of \$303,292,000 for residential construction; \$95,994,000 for office building; \$70,002,000 for assembly building and \$69,420,000 for commercial building.

Elements in the current eight-month heavy engineering figure were \$239,860,000 for dams, drainage, earthwork and airports; \$117,564,000 for water and sewer work and \$71,436,000 for government electric work.

School construction contributed \$339,-

591,000 to the \$660,619,000 total for government building in the first eight months.

Countrywide expenditures for new construction may reach \$34,666,000,000 according to predictions of the federal commerce and labor departments, with sharp rises expected in commercial building, utility construction, private housing, school building and highway work.

Expenditures at the end of the year are seen less for private industrial construction and farm and hospital building. Despite these declines, the year's dollar volume is forecast at a new peak in work actually put in place.

A moderate decline in the second half of the year will reflect a smaller rise for the last six months than usual, this attributed to decreases in outlays for private plant and a tapering of private housing and military facilities.

The two federal departments explain their joint prediction as based largely on relatively firm estimates of work already put in place during the first seven months and information on work under contract and to continue or be completed during the remainder of the year.

"Mild adjustments" in the general economy are expected this year. Public and private dwelling starts are set at 1,100,000 units, as compared with 1,127,000 units in 1952.

Both private and public construction are described as sharing in the 1953 rise, which is estimated at two billion dollars,

or six per cent above the figure for last year.

The dollar value of private work is expected to reach \$23,100,000,000, or two thirds of the year's total. This is declared by the federal forecasters as "unprecedented."

Sharpest upturn in private activity will be the commercial building field, where expenditures will increase about forty-five per cent to a \$1,700,000,000 peak.

An all-time high of \$4,400,000,000 is expected in public utility construction. Most of the rise of eleven per cent will be in gas and electric light and power group. Only moderate increases are seen in railroad and telephone work.

Despite the downward trend in private industrial building registered since March, a \$2,200,000,000 expenditure forecast for this year will be exceeded only by the \$2,300,000,000 of 1952, according to federal agencies.

A third of all new construction and one-half of the expenditures for private work will be for residential building, this to total \$11,700,000,000. A five per cent rise in expenditures is seen in this field, despite the smaller number of starts.

The increase is attributed to higher prices and unseasonably large numbers of dwellings begun during the latter part of last year, which were still under construction early in 1953.

The \$11,500,000,000 cost of new public construction will account for about one-third of the 1953 activity. Estimates set only three out of every ten dollars of public work for direct defense purposes, such as public industrial plant and military and naval facilities.

Public industrial construction, largely work on atomic energy establishments, will advance fifteen per cent to a peak of nearly \$1,500,000,000, as construction of the Portsmouth, Ohio facility gets into full swing.

Military and naval construction is expected to be about the same as in 1952. Some projects were delayed and some may be set aside as a result of the "essentiality" review of federal projects.

Expenditures for two important civilian types of public construction—highways and schools—will probably rise by ten and eight per cent, respectively.

SOUTH'S CONSTRUCTION BY STATES

	August, 1953	Contracts to be Awarded	Contracts Awarded First Eight Months 1953	Contracts Awarded First Eight Months 1952
	Contracts Awarded			
Alabama	\$20,758,000	\$23,176,000	\$113,984,000	\$225,774,000
Arkansas	1,934,000	24,865,000	32,951,000	54,869,000
Dist. of Col.	58,000	2,710,000	33,160,000	39,058,000
Florida	38,329,000	41,870,000	257,835,000	348,091,000
Georgia	24,355,000	10,759,000	160,442,000	219,215,000
Kentucky	8,475,000	4,450,000	191,084,000	551,084,000
Louisiana	22,207,000	80,204,000	220,034,000	341,289,000
Maryland	25,590,000	50,106,000	199,116,000	259,439,000
Mississippi	9,204,000	11,380,000	58,417,000	92,360,000
Missouri	5,806,000	15,925,000	90,149,000	66,789,000
N. Carolina	16,966,000	17,141,000	136,355,000	186,743,000
Oklahoma	6,112,000	2,265,000	56,295,000	110,214,000
S. Carolina	11,915,000	7,300,000	99,404,000	137,078,000
Tennessee	13,593,000	32,683,000	127,089,000	718,937,000
Texas	60,494,000	102,688,000	555,350,000	793,569,000
Virginia	14,461,000	11,558,000	160,151,000	210,178,000
W. Virginia	3,230,000	1,685,000	130,381,000	64,899,000
TOTAL	\$283,987,000	\$440,765,000	\$2,622,197,000	\$4,419,586,000

Goggles

United States Safety Service Co., 1215 McGee, Kansas City 6, Mo.—A new line of cup-type goggles has been introduced under the trade name "SAF-I" which includes a new chippers' goggle and 2 new types of welders' goggles. Features of the new goggles, as claimed by the manufacturer, are good ventilation, light weight and comfort without sacrificing



SAF-I Goggles

strength and durability. The chippers' goggle comes equipped with new plastic lenses which have super scratch resistance and super strength with only half the weight of safety glass. This new plastic lens is known as Optilite A. Two other lens materials, Optilite B plastic and hardened glass are also available.

Eye cups for all 3 goggles are scientifically designed for comfortable fit and maximum angle vision. The rubber headband has a rippled surface and an adjustable slide fastener to give positive fit and prevent slipping.

Tube Expanding Machine

Walter P. Hall, Inc., 22183 Telegraph Rd., Detroit 19, Mich.—A vertical tube expanding machine, first in a new line of hydraulic powered machines for expanding and sizing metal tubing.

The vertical machine is a manually controlled type that is particularly adapted to the expansion and sizing of copper tubing in evaporator and condenser coil assemblies. The model illustrated has expansion mandrels mounted on one-inch centers. These mandrels expand sixty $\frac{3}{4}$ " dia. copper tubes 0.020" in an evaporator assembly to provide thermal-conducting, mechanical joints between the tubing and a stack of cooling fins.

Another set of sixty mandrels, through which the expanding mandrels feed, are picked up near the end of the down-feed to size the ends of the tubing for soldered return bend fittings by expanding them

an additional 0.026". Cycle time for the operation, including loading, expanding, sizing and unloading, is 40 seconds.

Controllers

The Bristol Co., Waterbury 20, Conn.—Bristol Electronic Dynamaster Recording Potentiometers are now available in the form of Time-Temperature Program Controllers.

These new program controllers regulate temperature according to a predetermined schedule of changing values. Any desired program, such as a heating, soaking, and cooling cycle can be accurately maintained. The desired schedule of temperatures is prescribed by the contour of a transparent plastic cam.

The same controller can be used to maintain any number of different temperature programs, since cams of different contour are easily cut and interchanged. The instruments employ an electronic control system with proportional input action optionally available.

Non-Skid Grilles

Bustin Firm-Grip Grating Corp., 110 East 130 Street, New York 37, New York—"Coroweld" Non Skid Grilles. It's a light-weight product adapted to the assembly of Platforms, Catwalks, Stair Treads, etc., for slippery floor areas and steep inclines. The unique assembly and engineered spacing of the contact points, assure safe walking and firm footing in grease, oil, snow, sleet, etc. Bustin Coroweld Non Skid Grilles are available in various sizes for installation on skidding and slipping spots.

Motors

Century Electric Co., St. Louis, Mo.—A complete, new integral gearmotor series from 1 to 15 h.p. The motors are offered in a wide range of speeds, in single, double and triple gear reductions.

In the new Century gearmotors, gears meeting A.G.M.A. Class I, II and III specifications can be had to fit varying load requirements. Motors are available with constant or variable speeds and with protective frames to operate under most atmospheric conditions.

Cleaning Gun

C. A. Roesch & Co., 1221 S. Hope St., Los Angeles 15, Calif.—A new, triple-purpose sand blast, liquid and air cleaning gun under the trade name of "Carco."

It is a precision built, low cost hand gun, highly efficient for cleaning small parts and surfaces with sand, liquid or air.

The Carco Gun operates efficiently on air pressures of 75 lbs. and up. Maximum

efficiency for sand blasting is obtained with air pressures of 100 to 140 lbs., an extremely handy and valuable tool wherever air is available.

The gun itself has a light, strong, durable metal body; has a precision built valve and trigger assembly and is equipped with a hardened steel jet and nozzle. The complete Carco kit contains the gun, three extra hardened steel nozzles, extra hardened steel jet, a glass sand container with cap, machined brass fittings, a three foot rubber hose and a convenient wrench for removing and installing the jet.

Reducing Valves

Leslie Co., 125 Delafield Ave., Lyndhurst, N. J.—New small flow bronze or steel reducing valves for steam, air, gas, or liquid service.

These valves have a wide variety of applications in molding plants, pilot plant operation, laboratory units, sterilization plants and other fields where small flows have always been a problem.

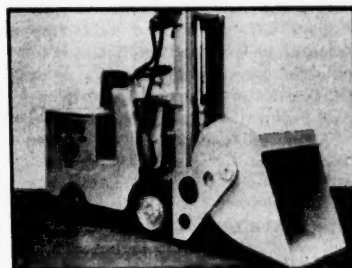
Compact, rugged, the reducing valves handle inlet pressures to 1,000 psi and reduced pressures from 2 to 400 psi.

Complete capacity tables for four sizes of controlling valves from 3/32" to 5/16" are included in the new bulletin to facilitate sizing.

Scoop Attachment

Elwell-Parker Electric Co., 4205 Clair Ave., Cleveland 3, Ohio—A scoop attachment, designed for use on any of its hydraulic-powered fork trucks.

The attachment is specifically designed for handling such bulk materials as fine



Elwell-Parker Scoop

coal, salt, sulphur, grain, etc., but is not intended for loads where the lumps are large. It receives its hydraulic power from the same system which operates the lift and tilt on the vehicle.

Dimensions: overall width, 37 $\frac{3}{4}$ "; cubic content, 25 cu. ft.; capacity, 3,200 lbs. (maximum capacity of scoop determined by truck capacity). Features of the scoop

(Continued on page 48)

NEW PRODUCTS

(Continued from page 47)

are its anti-friction bearings supporting the trunnions of the scoop, a double-acting hydraulic cylinder which moves the unit from the loading to the carrying position, and a replaceable wear strip on the lip of the scoops.

Welding Bench

Industrial Equipment Bench & Mfg. Co., Inc., 98 South St., New Britain, Conn.—A new series of Welding Benches with a top 36½" x 36½". Though not furnished, Fire Brick 9" x 4½" x 2½" can easily and conveniently be installed on the top. The bench is standard height (33½") and comes equipped with a bench drawer 18" x 22" x 5" and a shelf with partitions for holding welding rods. The legs are of an exclusive design construction—electrically welded into formed sections.



Industrial Welding Bench

The Industrial Welding Bench is so constructed to permit it to stand sturdily by itself without end or wall support. Choice of lock or padlock attachment is available for the electrically welded, theft-proof steel drawer (18" x 22" x 5") which will not bind or cramp, no matter how full.

Temperature Regulators

Farris Stacon Corporation, 611 Commercial Ave., Palisades Park, N. J.—An addition to its line of self-operating temperature regulators. They are designated as Type V1000 direct acting, for heating applications, and VR1000 reverse acting, for cooling.

These extremely compact, self contained pilot operated regulators have been developed to incorporate design simplicity and the advantages of the liquid expansion principle in the larger size valves. A single seated pilot valve positions the piston of the main valve,

which controls the throttling position of the main valve disc.

Built-in self cleaning steam strainers protect the vital parts of both the pilot and main valves and eliminate the necessity of installing a separate strainer in the piping system.

Complete internal porting eliminates external damage and minimizes maintenance.

A small compact thermal system, liquid filled, is easily replaced in the field without even removing the regulator from line.

Solder Pot

Dee Electric Co., 1101 N. Raulina St., Chicago 22, Ill.—A new Solder Pot called Model 88, made especially for Printed Circuit Work with new features that make it efficient for this type of work.

Maximum effective depth is 5/8". A copper panel, plated to prevent alloying action with the solder, is immersed 5/8" below the surface of the solder. This copper panel operates as a thermal condenser in that it discharges heat into chilled areas, and it tends to provide distribution of heat at all points in the solder in the controlled area which measures 10¾" x 5½".

It is thermostatically controlled. Thermostat is coupled thermally to the panel so that it responds to temperature variations of the panel and correspondingly operates the panel's heating element.

The heating elements, affixed to the crucible to provide minimum operating temperature, are not controlled. Control of the surface temperature is precise.

Portable Conveyor

Frank A. Kremser & Sons, Inc., 3435 N. 5th St., Philadelphia 40, Pa.—A sturdily built, low cost portable conveyor that has a power operated safety screw lift and lowering device which cannot fail in normal operation.

The unit raises to any angle, is ideal for use by itself or with other types of conveyors for stacking, storing, loading and unloading bags, boxes and cartons. It can also be used to transmit packages from floor to floor when elevators are not available.

The conveyor is built to operate low to the floor and has no obstruction at the loading end so that pick ups can be made with little effort. In addition, there are no sides to interfere with extra wide boxes.

Removable rubber cleats every 60 inches on the 3-ply corrugated belt pre-

vent tearing of packages and a reversible motor permits instant change of direction for loading or unloading.

Floor Machine

Premier Company, Dept. KP, 755 Woodlawn Ave., St. Paul 1, Minn.—A new floor machine designed for heavy duty use on all types of floors.

The Premier All-Purpose Floor Machine adapts quickly with accessory brushes and pads for scrubbing, waxing, polishing, shampooing, buffing, dry cleaning, grinding, sanding and other floor maintenance jobs, the manufacturer says. It will operate on all types of floors, including linoleum, wood, asphalt tile, terrazzo, rubber and concrete.

Requiring less current to start than conventional units, the Premier All-Purpose machine is equipped with an adjust-



Premier Floor Machine

able handle, G.E. motor and complete ball bearing gear train. A floor height of only 12" permits the operator to thoroughly cover hard-to-reach areas.

The Premier equipment is available in three models—1/3, 1/2 and 3/4 H.P. Each unit is furnished with 40 feet of heavy cable. Also available with the floor cleaner is a polishing brush, scrub brush, steel wool pad, lamb's wool buffer and solution tank and channel feed brush for conversion of the machine to an all-purpose scrubber. Other specialized attachments are available for sanding, grinding and similar operation.

Measuring Tool

Micrometrical Manufacturing Company, 345 S. Main St., Ann Arbor, Mich.—A line of six Profilometer LE-type Tracers for taking surface roughness measurements in holes as small as 1/2" ID, as deep as 24", and from 1 to 75 microinches roughness.

In order to enter small, deep holes, these Tracers have an integral Linkarm

or Stiffarm, each available in three standard lengths for measuring to maximum depths of 9", 18", and 24". Tracers with Linkarm are intended for operation by means of a motor-driven Mototrace, but can be used for hand tracing if necessary. Tracers with Stiffarm are intended for manual operation, but can be used with a Mototrace by attaching the Stiffarm to a standard Linkarm. All Tracers can be used with any Profilometer Amplimeter.

Utility Hose

Quaker Rubber Corporation, Philadelphia, Pa.—A new, wire-reinforced utility hose, Ironsides Utility Hose.

Designed especially for multi-purpose work, where extreme flexibility and resistance to high pressures is required, Ironsides Utility Hose can be used as an air hose, oil hose, water hose, gasoline hose, spray hose, and even for hydraulic lines at working pressures as high as 1,500 p.s.i.

Made with a non-porous oil resistant tube, this hose is reinforced with 2 separate braids, one of steel wire and one of rayon. The steel wire braid is grounded to provide a positive conductor for static electricity. The cover is made of thick, tough, oil-proof Neoprene, and is colored bright yellow, so the hose can easily be seen in mines and other dark places.

Available with either high pressure re-attachable or pressed on hydraulic fittings, this hose is made in 3/4" to 2" inside diameter sizes, and costs no more than good quality conventional air hose.

Dust Collector

The American Air Filter Co., Inc., Louisville, Ky.—Design 4, Type N Roto-Clone dust collector, an improved hydrostatic precipitator that separates the dust



Type N Roto-Clone

from the air by means of an S-shaped water curtain. This unusual and distinctive

water curtain has proved highly effective in collecting most types of process dust.

It is available in three basic arrangements which are identical in operating principle but differ in hopper design and means of sludge removal. The three arrangements provide manual cleanout, continuous drain and sludge ejection by flight conveyors.

Among the improved features are: non-plugging water entrainment separators; heavier sludge ejector mechanism; wider range of sizes and capacities; and sectional construction to permit field conversion from one arrangement to another. The Type N Roto-Clone is now made in sizes for capacities from 1,000 cfm to 48,000 cfm.

Automatic Drain

Wilkerson Corporation, 3427 S. Platte River Drive, Englewood, Colorado—The Wilkerson Series 1070 float operated sump drains and moisture separators have been mechanically simplified and now incorporate a leak-proof cast-aluminum float. Elimination of much of the trip mechanism makes for added service life under conditions of extreme corrosion and vibration.

Sump drain model 1070 automatically drains accumulations of water and sludge from line sumps, tanks, and after-coolers. It is not designed to separate contamination from moving compressed air. While the unit is actuated by accumulation of contaminants, actual discharge is by pressure of compressed air in the tank or sump to which the unit is attached. The float triggers instant release of the accumulation by means of a patented device which uses air pressure to open the port in the bottom. Action is instantaneous both in opening and closing, so that pressure drop is insignificant. Draining capacity is over 250 gal. per hr., and the unit can be made for practically unlimited capacity.

Circuit Breaker

Mechanical Products, Inc., 1824 River St., Jackson, Mich.—"Mini-Breaker," the miniature permanent circuit protector that fits like a fuse in any standard Edison base fuseholder, is now available in 10 ampere rating to provide improved circuit protection for small motors used in appliances, blower fans, and similar applications. The new 10 ampere Mini-Breaker carries the same Underwriters' Laboratories, Inc. listing as those being produced in 15, 20 and 30 ampere ratings by the manufacturer.

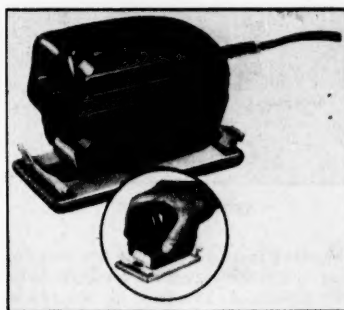
Anyone can install Mini-Breaker in seconds, and anyone can restore service

merely by pressing in and releasing its shock-proof reset button. While similar in size to the fuse it is designed to replace, Mini-Breaker is actually a precision-built, thermally actuated circuit protective device. It safely interrupts excessive overloads and short circuits, tripping instantly on "shorts," yet featuring a built-in time lag to handle temporary starting overloads and line surges. The device is 100% trip-free, and positively will not maintain a circuit that has not been cleared of the condition causing the overload. Any attempt to reset against an overload or "short" only increases the speed of tripping.

Sander-Polisher

Wen Products Co., 5808 Northwest Highway, Chicago 31, Ill.—A brand new, light and quiet straight-line action Electric Sander-Polisher.

Among the unusual features claimed for this new Sander-Polisher is compact,



Wen Sander-Polisher

functional design which provides secure grip for the hand down close to the work for better control.

The new Wen device is said to be so quiet when operating that it sounds about like an electric razor. Its straight-line action is free from bucking or whipping, according to the manufacturer, and delivers 250 strokes per second with the grain of the wood. This action and its compact design permit the Sander-Polisher to be worked effectively for fine finish sanding or polishing right into the corners with the entire pad in contact with the work.

A most effective snap-lock self-tightening sandpaper gripper is claimed. Polishing cloth is readily substituted making the unit ideal also for polishing the family car, furniture finishes, metal trim—anything.

Advantages are obvious for both professional sanders and polishers and "Do-It-Yourself" enthusiasts.

(Continued on page 50)

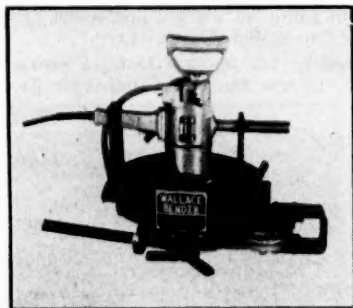
NEW PRODUCTS

(Continued from page 49)

Bending Machine

Wallace Supplies Mfg. Co., 1300 Diversey Parkway, Chicago 14, Ill.—The Wallace No. 60 Bending Machine is said to be unlike any bending machine on the market today. A "Skill" drill press $\frac{3}{4}$ hp. motor actuates the bending by simply pulling the trigger switch. The toggle switch above the trigger switch controls the forward or reverse rotation of the bend.

Interesting facts on this bender: It can be hand carried from place to place. It will bend from $\frac{1}{2}$ " to $1\frac{1}{4}$ " IPS pipe to 180°. It operates on 115V-single phase-60 cycle AC or DC current. It averages 60 bends per hour with one man. Die forms can be quickly and easily changed for pipe sizes. Limit switches are preset at the factory for 0 and 180 degree rotation



Wallace No. 60

of bending form to prevent the possibility of overtravel in either forward or reverse direction. Designed to operate so that the machine can be placed anywhere along a length of pipe and then operated at that location—result, less handling of the pipe. Main driving gear is case hardened and ground for maximum resistance to wear. When not used as a portable bender it can be mounted on a bench or clamped in a vise. All steel, arc welded construction for maximum strength and minimum weight.

Fire Extinguishing Agent

Eston Chemicals Div., American Potash & Chemical Corp.—A new type of fire extinguishing agent, several times as efficient as carbon tetrachloride.

The compound is known chemically as methylene chlorobromide, and is commonly referred to as "CB." It was first developed in Germany during World War II, but only recently began to gain wide acceptance in this country for use in fire control equipment.

In addition to being several times as efficient as carbon tetrachloride, CB has

a much lower level of human toxicity. It is being used almost exclusively in all the newer types of U. S. Air Force planes. An added advantage in aviation use is a substantial weight saving per unit of effectiveness, as compared with other fire extinguishing agents.

Eston Chemicals is exploring further uses of CB both in the military and civilian fields, and it is felt that this material will become increasingly important in the company's line of organic bromine compounds.

Electrolytic Cleaner

Klem Chemicals, Inc., 14401 Lanson, Dearborn, Michigan—Klem Cleaner "197" is for use on ferrous metals and may be used with either direct or reverse current. It also is reported to have exceptionally high conductivity qualities and long life.

Polishing and tumbling compounds that harden and are difficult to remove from pits and crevices are among the types of soil more readily freed by the gases when "197" is added in concentrations of 2 to 8 ounces to the gallon of water. "197" is shipped in dry powder form and sold by the hundred weight.

Pneumatic Triplets

Mall Tool Co., 7725 S. Chicago Ave., Chicago 19, Ill.—Three new Mall Pneumatic Impact Wrenches offer capacity, power and size to meet individual needs, for all tightening or removing of bolts and nuts, for removing of broken cap screws and studs. They do tapping, are ideal also for reaming and for driving and removing of lag screws and screw spikes. The Model PW-5014S, the "Squatty," takes $\frac{3}{4}$ " bolt or nut; its spindle has $\frac{3}{4}$ " square drive; speed is 1600 rpm free at 90 psi.

The Model PW-4012P takes $\frac{3}{4}$ " bolt or nut; spindle has $\frac{3}{4}$ " square drive; speed is 1300 rpm free at 90 psi. Model PW-308P has capacity of $\frac{1}{2}$ " bolt or nut; spindle has $\frac{1}{2}$ " square drive; wrench has free speed of 1400 rpm at 90 psi.

All three models have five vane rotary type air motor, built-in automatic oiler, and pin lock.

Industrial Fanner Magnet

Eriez Manufacturing Co., Erie, Pa.—A new sheet fanner magnet, that can be utilized in the metal-working market.

Wherever steel sheets are handled in piles, such as in stamping, punch press-

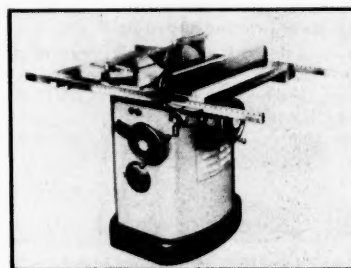
ing or shearing operations, it has always been extremely difficult to remove the sheets one at a time. Because the sheets often have sharp edges and stick together because of oil coatings, it was a slow and dangerous task to separate them before entrance to the feeding machine. Hands are frequently cut, gloves wear out quickly, and, of great importance, is the danger of damage to a machine by accidentally feeding two sheets at once.

The new sheet fanner magnet will perform the following operations: separate oily sheets without prying, lift polished or painted sheets without scratching, prevent double feed, provide safety for operators, handle irregular or odd shapes, protect dies, and speed up production.

The sheet fanner is available in four strengths and three sizes—6", 9" and 12"—depending upon the individual application, and will handle light sheets from 22 gauge up to $\frac{1}{4}$ " plates.

Variety Saw

Yates-American Machine Company, Beloit, Wisconsin—A new 10" Tilting Arbor Variety Saw, with a rip fence—fence rail construction (patent pending) that insures perfect fence alignment at



Yates-American G-110

all times and represents a revolutionary principle in circular saw design.

The new saw, Model G-110, incorporates all of the essential features desired in modern circular saw construction: Sturdy, shock-insulated frame; machined, heavily ribbed table; miter gauge operation on either side of saw blade (unique miter gauge rides in square table grooves yet is self supporting when extended beyond table); fence rail extensions that do not affect the accuracy of fence setting; micrometer fence adjustment (to sixty fourths) on large, easily read dial; full utilization of power (through Compass Vee Steel Belts); maximum safety and convenience of operation.

The rip fence has "positive alignment" at all times. It locks, both front and rear, to the fence rails, and by the nature of its design, can only be locked when absolutely parallel to the saw blade. Adjustments for width of cut are then made not by moving the fence but by moving the rails which carry the fence.



O'SULLIVANS AT HOME. Clarence M. O'Sullivan, construction foreman with 34 years' experience; daughter-in-law Marilyn, clerical assistant for 5 years, and Mr. O'Sullivan's sons: Don, an installer with 7 years' service, and Clarence C., cable repairman with 13 years' service.

Fifty-nine Years of Telephone Service

FATHER, TWO SONS AND DAUGHTER-IN-LAW ALL WORK FOR THE TELEPHONE COMPANY



TELEPHONE MAN OF 1970. Clarence C. O'Sullivan's young son, Mike, likes to pretend he's a "telephone man." And he will be when he grows up, if he follows in his family's footsteps.

When Clarence M. O'Sullivan started to work for the telephone company, back in 1919, he started a family tradition. Since then two sons and a daughter-in-law have also decided on telephone careers. They have a total of fifty-nine years' service.

A recent U. S. Government survey gives some interesting figures on the length of time men and women have served with their present employers.

By comparison, the length of service for women in the Bell System is twice the average for women in other industries. For telephone men it is nearly three times the average for other industries.

This longer length of service, which indicates job satisfaction, also has a value to the telephone user. It helps us give better service to everyone.

Bell Telephone System



New Steels

(Continued from page 35)

an effect on the ability of some steels to harden under heat treatment.

Principal sources of zirconium are in the sands and gravels of Australia, India and Brazil. The beach sands of Florida, Oregon and the placer sands of Idaho also contain commercial quantities of the metal. Once considered a rare element, zirconium is now known to be more abundant in the earth's crust than such more familiar metals as copper, nickel, lead or zinc.

For use in steelmaking, zirconium is generally added to the molten metal in the form of a ferroalloy, an alloy of any element with iron. In non-metallic forms it has numerous uses outside of the steel industry.

In quantity, the use of zirconium in the manufacture of steel is among the smaller alloy metals, ranking about with vanadium, and being much less than the use of nickel or chromium.

Results of Research—NE Steels—Experience of steel producers and consumers with the so-called "National Emergency" steels in World War II, together with advanced research in the postwar period, provide industry with distinct gains in knowledge and experience over conditions at the beginning of World War II. These "NE" steels, as they were popularly known, now standard steels, preserve the advantages of alloy steels when supplies of alloying elements become scarce.

These steels are low alloys, each containing lean but balanced quantities of the three elements, nickel, chromium and molybdenum. It is a well-established principle that small amounts of several alloy metals generally replace larger amounts of a single alloy metal as commonly used in conventional steels. With NE steels the number of types of chemical compositions also is reduced.

Wherever applicable, the use of those NE steels was compulsory from about the middle of 1942 until the end of the war because of the critical shortage of various metals, especially nickel and chromium. Molybdenum, because of its relative abundance within this country, was the most extensive substitute while at the same time it continued as an important ingredient where it had been previously used. Long before the shortage of alloy materials became critical in World War II, the steel industry had anticipated that possibility and a special committee had developed some of the NE steel compositions in 1941. They were put into service almost immediately.

Production of NE steel surpassed 2 million tons a year in the last three years of the war. They constituted about 16 to 25 per cent of alloy ingot output other than stainless in those years. At that time total annual alloy steel output ran as high as nearly 15 per cent of total steel production, or twice as much as in the best alloy years prior to the war.

Since World War II, production of alloy steel has been running 8 to 9 per cent of total steel. Many of the NE steels survived the reconversion period after the war, because they proved to be adequate in mechanical properties for a wide variety of uses. Since the end of the war some of the NE steels have been accepted as standard steels by both the Society of Automotive Engineers and the steel industry. In addition, they have been included as standards in many Army, Navy and Air Force specifications. Production of such steels since the war has averaged 15 per cent of alloy steel production other than stainless.

In producing and fabricating those alloy steels both the steel companies and their customers improved the techniques of alloy steel metallurgy.

If critical shortages develop in alloying elements it is reasonably to be expected that the use of these "triple alloy" steels will be expanded to meet the demand.

New Steels—More recently new types of steel which will stretch the nation's supply of critical alloying elements have been developed.

An important part in this development is played by a common element, boron, although its actions are not thoroughly understood. A steel industry committee, in mid 1950, foresaw overwhelming demand for the alloys contained in standard, heavily alloyed steels. Those alloys would be required almost entirely for jet aircraft, atomic energy and other expanded defense programs, and leave little for other alloy steels. It would be necessary to develop leaner alloy steels for automotive gears, engines, transmissions, certain parts of farm equipment and scores of other ordinary uses, without sacrificing the physical properties of the steel.

In steel company laboratories it was found that the amounts of alloying elements, nickel, chromium and molybdenum could be reduced about 50 per cent, provided small quantities of boron were used carefully. Boron, abundant in the borax deposits of Death Valley, California, peps up the performance of the lean alloy steels. It increases the hardenability of the steels; that is, the ability of the steel to harden deeply, when heat treated, by quenching and tempering. That action, as yet unexplained, increases the strength of the steel without reducing its toughness.

Two series of steels have been developed for practically all the engineering and constructional purposes for which standard alloys steels are used. The new steels, which are balanced multiple alloy steels, are designed to make maximum use of the alloys contained in scrap. Both series contain an average of 0.30 per cent nickel and 0.12 per cent molybdenum; plus boron. One series contains an average of 0.25 per cent chromium, the other 0.43 per cent.

During the making of the new steels, close control must be maintained by steelmakers. And users must have close control over their heat treating methods. However, such controls can be main-

tained. That was proved in World War II when the United States used leaner alloy steels than any other country.

The new steels contain only half the quantity of critical elements contained in the NE steels of World War II.

Recently, the production of nickel-chromium, and nickel-molybdenum grades has declined, and the output of triple alloy steels has increased.

Production of this steel last year almost doubled that of the year previous. As a percentage of total alloy steel other than stainless, it jumped to 9.2 per cent in nine months of 1952, from 4 per cent in all of 1951.

The production of alloy steel has been rising slightly more rapidly than the total output of steel. The output of alloy steel, including stainless, was 9.7 per cent of total ingots and castings in the first nine months of 1952, compared with 9.6 per cent in the same part of 1951, and 7.3 per cent in the first nine months of 1949.

The current ratio is less than the peak of 14.7 per cent in wartime 1943, but is substantially higher than the range of about 5 to 7 per cent that prevailed for many years prior to World War II. The output of alloy steel in the first nine months of 1952 was a little over 6.2 million tons, off about 1.3 million tons from the similar 1951 period because of the strike of steelworkers. In all of 1951 it was a little over 10 million tons, up 1.5 million from the previous year and much larger than in any other year since 1944.

Boron steel is, of course, a tribute to the steel industry and to the ingenuity and vision of its research. In these critical times its development stands as a beacon in the storm to this nation and as a red stoplight to those who would do her in.

U. S. Rubber Moves Division From North to Winnsboro, S. C.

The production management section of the textile division, United States Rubber Company, has moved from New York to Winnsboro, S. C., William E. Clark, vice president and general manager announced last month.

The move, Mr. Clark said, will permit better coordination between the production management section and the division's seven southern plants.

The following are moving to the new location: R. C. Harrington, production manager; W. W. Watkins, chief engineer; J. E. Sullivan, manager of industrial relations and labor standards; R. R. McGee, planning engineer; L. D. Swearingen, manager of technical service; J. W. McSwain, consumer fabrics production supervisor; A. G. Quattlebaum, office manager; E. W. S. Calkins, fiber technologist; J. P. Harrison, assistant to planning engineer; D. M. Grieb, assistant to chief engineer, and W. L. Wylie, assistant to manager of industrial relations and labor standards.

"Hickory Task Force" Meets at Asheville

Committee Chairman of the new "Hickory Task Force" met at the Southeastern Forest Experiment Station, Asheville, N. C., July 23 and 24. This meeting was a follow up of an original meeting held at Clemson, S. C., in April, where more than 60 federal, state, and industrial representatives launched a 3- to 5-year program to promote the increased utilization of hickory.

Foresters and lumbermen recognize the value and scarcity of high quality hickory needed for handle stock, picker sticks, ski stock, and similar products requiring clear, high-density wood. These men also recognize the limited quantity of this material as contrasted with the increasing quantity of medium and low-grade hickory found in eastern forests. Millions of feet of slow-growing, narrowing hickory have been bypassed by the loggers. The problems of the Hickory Task Force are to develop new markets for this lower grade material through additional research and reports that will give industry the latest information on the use of this wood. No wood in our American forests has a higher inherent value than hickory, a wood that in shock resistance equals or excels steel.

Plans were made for the preparation of more than 20 reports during the next 3 years, and authors who are authorities in their field were selected for preparing these reports.

Ingalls Awarded \$24 Million Contract

The Ingalls Shipbuilding Corp. has been awarded a contract to build two special design steam turbine propelled refrigerated stores ships for the U. S. Navy at a cost of \$24,880,000.

Robert I. Ingalls, chairman of the board for the company, said the new contract calls for delivery of the ships late in 1955. They will be built at the company's Pascagoula shipyard.

The Maritime Administration, U. S. Department of Commerce, made the contract award which is exclusive of the costs of government-furnished material and armament.

The vessels are designed as refrigerated fleet provision issue ships. George A. Sharp, New York naval architect, is preparing the plans.

The ships will be approximately 500 feet long and basically merchant ship type.

Ingalls said work will commence at once and orders for steel have been placed with mills.

He also revealed that the Pascagoula shipyard has delivered the second of five landing ship tanks known as LSTs now nearing completion.

The company also delivered the second of five mariner class cargo ships and later this month will turn over to the Luckenbach Gulf Steamship Co. the Cotton Mariner, one of three to be delivered.

from ARMS
to ZIPPERS

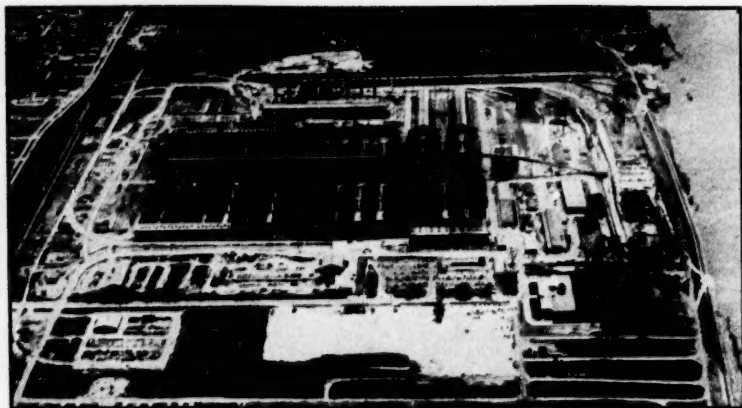
**VARIETY IS
THE SPICE OF
INDUSTRIAL
LIFE
in NORTH CAROLINA**

Regardless of size or product, industries of every kind have found North Carolina's "Accessible Isolation" offers unique advantages for successful growth and prosperity. This growth in diversity of industry is matched by North Carolina's own "Variety Vacationland" where workers enjoy unlimited recreational facilities only minutes from their homes.



For a list of industrial sites and
buildings and other information,
communicate with

DEPARTMENT OF CONSERVATION AND DEVELOPMENT, RALEIGH, N. C.



View of the vast reduction plant of Kaiser Aluminum Co. at Chalmette, La. The eighth and final potline was just recently completed. Annual rated capacity of the plant is 400,000,000 pounds of aluminum.

Kaiser Announces Completion of Huge Chalmette Plant

The eighth and final potline of Kaiser Aluminum's huge aluminum reduction plant at Chalmette has been completed and produced its first molten metal on August 25th.

The completion of the eighth and last potline at Chalmette gives the greater New Orleans area the largest aluminum reduction plant in the U. S. and the second largest plant of its kind in the world. Kaiser first announced in February 1951, its intention to build a reduction plant here. Later the decision was made to double the production capacity of the plant.

The plant's eight potlines are housed in sixteen 960-foot buildings. Each line consists of 144 electrolytic pots in which the alumina produced at Kaiser's Baton Rouge plant is reduced to molten aluminum. The rated annual capacity of the plant's 1,152 pots is 400,000,000 pounds—more than the total U. S. aluminum production prior to World War II.

The plant is located on a 280-acre tract with river frontage about mid-way between Arabi and Chalmette. Included in the reduction plant's facilities is a water system capable of pumping more than 180,000,000 gallons of water per year and a power plant, fueled by natural gas, which generates 475,000 kilowatts. Producing aluminum at its rated capacity, the Chalmette plant will use approximately 50,000,000,000 cubic feet of natural gas each year.

The plant has already made a sizable contribution to the area's economy. Kaiser officials said that during the fiscal year which ended in May a total of \$21,543,881 was expended by the Chalmette plant in wages, taxes and purchases of materials, supplies and services. Wages alone accounted for \$7,353,000 during the fiscal year 1952-53. These are operational figures and do not include money expended in the plant's construction.

J. H. Lindemuth, Works Manager at Chalmette, used the occasion to emphasize the permanency of the Kaiser plant. He said that the Kaiser Aluminum plant here is a permanent, privately-owned fa-

cility based firmly on growing civilian demands and defense needs for aluminum.

"The aluminum industry anticipates an accelerated growth in demand during the next decade," he said. "Although defense requirements alone assure the use of all aluminum produced at Chalmette during the next five years, it is also hoped that with the ever-growing commercial demand for aluminum that an increasing portion of the plant's output can be diverted to help supply the civilian market."

"It is interesting to note that the market for aluminum in 1960 is expected to double that of 1950. Independent surveys conducted by the major aluminum producers, government agencies, and by the President's Materials Policy Commission, range from a 1960 market low of 4.1 billion pounds to a high of 6.8 billion pounds. This compares with the 1950 market of about 2.2 billion pounds.

"Kaiser's integrated operation centered around our Jamaican bauxite deposits, the expanded Baton Rouge alumina plant and Chalmette complements our west coast operations. It also places us in a favorable position in serving our customers in the south, mid-west and east, as well as our plants in Ohio and Maryland."

Lindemuth praised the work of Kaiser Engineers, the independent firm which designed and directed the construction of the plant, the thousands of construction workers, and St. Bernard and New Orleans business and government leaders for their part in bringing the eight potlines to an early completion.

"Ten months after the decision to build was made our first aluminum was poured. Since then Chalmette has produced many millions of pounds of aluminum for defense and civilian needs while the remainder of the plant's potlines were being completed," Lindemuth said.

Columbia-Southern Entering Ammonia Production Field

Columbia-Southern Chemical Corporation will enter the ammonia production

field, it was revealed on August 10.

E. T. Asplundh, president, said that the firm plans to construct its first ammonia producing facility soon at Natrium, W. Va. Contracts for the construction work will be let in the near future and the firm expects to be in production by late 1954.

Hydrogen, a by-product of the electrolytic production of chlorine and caustic soda at Natrium, will be utilized in the ammonia production. To date, the Natrium plant has burned the existing hydrogen supply as a fuel.

In the production of anhydrous ammonia, hydrogen and nitrogen are combined under high pressure in the presence of a catalyst. At ordinary temperatures, the product is a gas but commercially it is sold as a liquid under pressure.

Although the chemical industry has been constantly increasing production facilities, ammonia has been in short supply since World War II. A basic chemical product used by a wide variety of consuming industries, the product is finding increased utilization as a base chemical in the manufacture of fertilizers, synthetic fibers, plastics, cattle feed, and as a raw material for various synthetic chemicals.

The Natrium location was selected due to the availability of hydrogen supply and because industrial and agricultural outlets can be readily serviced from there.

Columbia-Southern Chemical Corporation, a wholly-owned subsidiary of Pittsburgh Plate Glass Company, has basic chemical producing plants at Barberton, Ohio; Corpus Christi, Texas; Lake Charles, La.; and Bartlett, Calif., in addition to its Natrium operations.

FPL Expansion Program Moving On Schedule

Thanks to the skills and teamwork of FP&L men and women and cooperation from suppliers of material and equipment, that portion of the huge expansion program scheduled for 1953 is proceeding on schedule.

The new 80,000 KW addition at Riviera is now two-thirds finished and a test run planned for October 1.

At Cutler, the new 80,000 KW addition is about 5 per cent finished and work progressing as planned for 1954.

A 66,000 volt high-line, running about 10 miles between the Riviera plant and West Palm Beach is on schedule and about 90 per cent complete.

Another 66,000 volt high-line, between Ft. Myers and Naples, roughly 35 miles, is in its preliminary stages.

The Riviera-Ft. Lauderdale 138,000 volt high-line, featured on this month's cover, is on schedule and about 60 per cent finished.

Preliminary work is proceeding on schedule on the Tampa-Bradenton tie line, which will link the transmission system of the Tampa Electric Company with FP&L.

Meantime, major expansions involving substations and other important system improvements are being completed.

Governors Advocate Chicago to Florida Toll Road

Gov. George N. Craig, Indiana; Gov. Lawrence W. Wetherby of Kentucky; Gov. Herman E. Talmadge of Georgia are taking the lead in promotion of a toll road from Chicago to Florida.

This would be the longest toll road in the country, proposed as a cooperative state project.

Each of the three states mentioned already have toll road commissions created by their state legislatures. Gov. Craig was quoted in the Wall Street Journal, August 6, as saying, "the time saved by the toll road would more than compensate for the cost of traveling over it." Gov. Talmadge of Georgia was quoted in the same Wall Street Journal article, as saying, "it would send all the southbound Chicago and Midwestern traffic through our state. Much of it by-passes Georgia."

Goodyear Completes Huge Warehouse at Gadsden

Completion of the South's largest industrial warehouse was announced at Gadsden, Ala. on August 27 by the Goodyear Tire & Rubber Co., Inc.

In announcing completion of all construction on the giant, one-story structure, Goodyear President E. J. Thomas said: "The field warehouse at Gadsden is an outstanding example of Goodyear's faith in the growing industrial and agricultural future of the South."

Measuring 1,000 feet by 400 feet, the modern steel and masonry building will be used as a field warehouse, serving the company's sales districts at Birmingham, Ala., Atlanta, Ga., Charlotte, N. C., Richmond, Va., Jacksonville, Fla., New Orleans, La. and Memphis, Tenn.

Finished products, including tires, tubes, industrial rubber products and associated merchandise will be handled by more than 100 employees at the new warehouse.

Means for loading or unloading 16 railroad cars and 20 trucks at the same time are available at the warehouse site which covers 24 acres of land. The warehouse alone covers nine and two-tenths acres, the remaining space being held for expansion purposes.

Located about four miles from Goodyear's Gadsden factory, which produces tires and tubes for passenger cars, trucks and tractors, and shoe products, the warehouse is only four blocks from the downtown district on the Tennessee, Alabama and Georgia railroad right-of-way.

In addition to the new warehouse, Goodyear operates one of the nation's largest rubber products factories at Gadsden and four textile mills, a fabric mill at Cartersville, Ga., two more mills in Georgia at Rockmart and Cedartown and a fourth at Decatur, Ala.

The company first entered the industrial picture in the South in 1926 with the Cedartown mill. The Gadsden factory has been expanded a dozen times since it was opened in 1929.

DIXIE STEEL

TRADE MARK

NOW OFFERS

ONE OF THE SOUTH'S LARGEST FACILITIES FOR HOT-DIP GALVANIZING

New Tank Size

4 FT. WIDE
6 FT. DEEP
25 FT. LONG

•
Double-dipping affords
accommodations for pieces
up to 45 feet long.

- CASTINGS
- FABRICATED PARTS
- EXPANDED METAL
- PIPE
- TANKS
- STRIP
- BARS
- PLATES

Manufacturers, fabricators, users of steel products: let us give you complete information about these new facilities which have greatly increased our capacity, provided for a more uniform and cleaner job, and made it possible to accommodate items of larger size.

Let us tell you how little it costs to improve the appearance of your steel products and give them years of added life.

Write, wire or phone us today for quotations on this superior service. Please give details about materials, including all dimensions.



If it's exposed to rust—hot-dip galvanize it!

FABRICATING DIVISION

Atlantic Steel Company

ATLANTA, GEORGIA • EMERSON 3441

BUSINESS NOTES

H. M. McDaniel, well known in the plastics industry, has joined the sales staff of **Republic Steel Corporation's** pipe division. This was announced Aug. 7 by **Jay W. Owings**, newly appointed pipe division sales manager.

In his new capacity, Mr. McDaniel will supervise the sale of plastic pipe and tubing, a field entered by Republic in June.

A native of Troy, Tennessee, Mr. McDaniel was graduated from the University of Tennessee and was associated for a year with Fulton-Sylphon Company in Knoxville.

In 1933 he joined the Tennessee Eastman Company as a production supervisor at Oak Ridge. For the past six years he has served as sales representative for the company in Ohio, West Virginia and western Pennsylvania.

William H. Yeckley has been appointed to a new position of general manager of steel operations for **The Youngstown Sheet and Tube Company**.

His appointment, effective Aug. 24, was announced by A. S. Glossbrenner, vice president in charge of operations for the company.

For the last three years Yeckley has been assistant to Glossbrenner with the title of assistant to the vice president in charge of operations. He has been directing steel operations in both the Youngstown and Chicago districts.

Yeckley, a native of Cleveland, began his steel career as a member of a labor gang for National Tube Company at Lorain. He advanced to first helper and later took turns as melter.

In 1937 Yeckley came here as test engineer for The Youngstown Sheet and Tube Company. The following year he was made assistant superintendent of open hearths at Brier Hill and two years later became superintendent of the department.

In 1943 he was made assistant superintendent of the Brier Hill plant and became superintendent a few months later. In 1947 he was named general superintendent of the Campbell steel plant, blast furnaces and Struthers Works and in 1950 became assistant to the vice president in charge of operations.

The Belmont Iron Works announce the retirement, as of August 31, 1953, of **Mr. H. A. Rowbotham** after 51 years of employment with Belmont.

Mr. Rowbotham has been Director of Purchases for years and will be retained as a consultant.

Mr. Chandler C. Caton has been appointed as Purchasing Agent. Mr. Caton has been associated with Mr. Rowbotham in recent years in the Purchasing Department.

National Gypsum Company has announced the appointment of **Robert L. Zale** to the newly created position of Products Promotion Manager.

Zale was formerly Assistant to the Advertising Manager of the Toastmaster Products Division of McGraw Electric Company in Elgin, Illinois. A graduate of the University of Missouri School of Journalism, he served with the Army for three years during the second World War.

Combination of **West Virginia Pulp and Paper Company** and **The Hinde & Dauch Paper Company** was recommended by the boards of directors of the two com-

panies at separate meetings held on Aug. 21. The action is subject to necessary stockholder acceptance.

On the basis proposed, shareholders of Hinde & Dauch will receive, for each of their shares, one and one-third shares of new West Virginia common stock, after a four-for-one split of its present common.

Hinde & Dauch is to be operated as a subsidiary of West Virginia Pulp and Paper Company with the operations, personnel and customer relationships of the two companies continuing as they are at present.

West Virginia's board voted to recommend to stockholders, for action at a special meeting to be held this fall, splitting the present common stock on a four-for-one basis. It also recommended that the new stock should have a par value of \$5.00 per share, and that the authorized shares be increased to 7,500,000.

At the same meeting, the West Virginia board declared a regular quarterly dividend of fifty cents (50¢) per share, and a year-end extra dividend of two dollars (\$2) per share, on the present common stock of the company.

Two sales departments of **Monsanto Chemical Company's** Organic Chemicals Division have been combined into a single new department of **Petroleum Chemicals and Functional Fluids Sales**.

The announcement was made by **John L. Hammer, Jr.**, general manager of sales for the division. He said that **John W. Newcombe** had been named manager of the new department.

Two former sales groups which are now merged will function as sections of the new department. The petroleum chemicals section will handle a tailored group of chemicals called oil additives and designed for specific automotive and industrial lubricant applications. The functional fluids section will be concerned with the sale of nonflammable type hydraulic fluids for aircraft and industrial applications.

At a recent meeting of the Board of Directors of **Jefferson Chemical Company**, three new members were elected. They are **W. P. Gee**, Assistant to the President, **The Texas Company**; **L. C. Duncan**, Assistant to the President, **American Cyanamid Company**; and **S. C. Moody**, Vice President, **American Cyanamid Company**.

The Jefferson Board now consists of the following representatives of American Cyanamid Company and The Texas Company, joint owners of Jefferson: **L. C. Duncan**, **W. P. Gee**, **M. Halpern**, **J. S. Leach**, **A. C. Long**, **W. E. Kuhn**, **S. C. Moody**, **L. C. Perkinson**, **R. L. Saunders**, **W. M. Stratford**, **R. C. Swain**, **K. C. Towle** and **M. C. Whitaker**. **P. M. Dinkins**, President of Jefferson Chemical Company, is also a member of the Board of Directors.

ECONOMIC SYSTEMS AND METHODS

Cooperative Production Profit
Sharing Plan Solves the
Employer-Employee Problem

UNIVERSITY OF ECONOMICS
FOUNDATION
101 Park Avenue, New York 17, N. Y.

**VIENER
METALS**



HYMAN VIENER & SONS

P. O. Box 573
Richmond, Virginia

ALUMINUM ALLOYS • BABBITT METALS • BRASS INGOTS
PIG and CAULKING LEAD • LEAD ALLOYS • SOLDER METALS
TYPE METALS • TIN AND TIN ALLOYS • SLAB ZINC

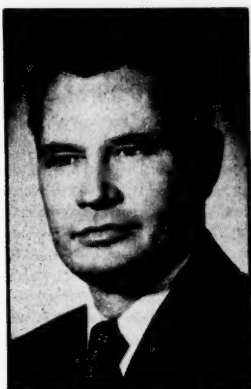
Specification Non-Ferrous Metals and Alloys

"YOUR DEPENDABLE SOURCE OF SUPPLY — VIENER METALS"

WHO'S WHERE

Appointment of **Guy T. Gunter, Jr.**, Atlanta, as Southeastern representative for **Chambers of Indianapolis and Shelbyville, Ind.**, pioneer gas range firm, was announced recently by A. H. Scheffer, sales manager.

The appointment is part of Chambers' plan to give salesmen more compact ter-



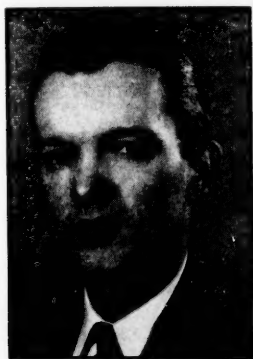
G. T. Gunter, Jr.

ritories, permitting closer contact with distributors and dealers, Scheffer said.

Gunter, who will work from his home, 905 Woodland Ave., S. E., Atlanta, Ga., will handle both console ranges and built-in equipment. His territory will cover Alabama, central and eastern Tennessee, Georgia, Florida, and North and South Carolina.

These states were formerly part of the territory handled by **M. A. Compton, Jr.**, who will headquarter in Houston and concentrate on Louisiana, Mississippi, Memphis, and southeast Texas.

Announcement has been made of the appointment of **Glen W. Goodloe** as assistant manager of the Transportation Market of the **Reynolds Metals General Sales Organization**. Mr. Goodloe will be



G. W. Goodloe

located in the General Sales Office at 2500 South Third Street, Louisville, Kentucky.

He comes to Louisville from the Wichita, Kansas, sales office and brings valuable experience from close association with the many aircraft manufacturers in that vicinity, as well as a broad general knowledge of the industrial markets gained from his six years' association with Reynolds and his prior experience with Butler Manufacturing Company, Columbia Steel Tank Company and North American Aviation.

New York Belting and Packing Co. has announced three changes in its district sales organization.

William I. Butler, manager for the southeastern district, with offices in Memphis, has been named district man-

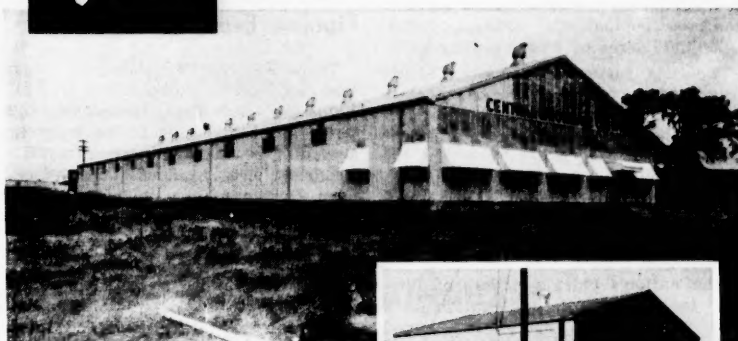
ager for the east central states with offices in Cleveland. His current post will be filled by **William W. Conard**, former district manager for the southeastern states with **L. H. Gilmer Co.** before it merged with New York Belting and Packing Co. a year ago. Mr. Conard will make his headquarters in Atlanta.

It was also announced that **Malcolm B. Roach**, sales engineer, has been appointed assistant manager for the southwestern district with headquarters in Dallas.

The Atlantic Coastline Railroad Company has announced the appointment of **J. D. Bozard** as Agricultural and Livestock Agent with office at Sanford, Fla.

THIS
"DUET"

harmonizes with building budgets



Armco Series P Building

Economy is the "keynote" of most building budgets today. And with Armco Steel Buildings you can meet cost requirements easier.

Two types of structures are offered to satisfy various needs in sizes and usage. **Armco Series S Buildings** with unique STEELOX construction are available in sizes from 4 x 4 feet to 40 feet wide by unlimited lengths. **Armco Series P Buildings** are designed for larger structures with clear span widths ranging from 20 to 100 feet. Lengths are unlimited.

Armco Series S Building

Both types of Armco Buildings have design and installation advantages that cut high building costs. Windows and doors go almost anywhere. Conventional heating and wiring systems are easily installed. There is practically no maintenance. And remember, steel won't burn. Write us for details.

ARMCO DRAINAGE & METAL PRODUCTS, INC.

DIXIE DIVISION

619 Forsyth Bldg., Atlanta, Georgia

SOUTHWESTERN DIVISION

C & I Life Bldg., Houston, Texas

Other Offices in Principal Cities

ARMCO STEEL BUILDINGS



Southern Lumber Industry Plants 65 Million Seedlings

The southern lumber industry has topped its previous reforestation records with the planting of 65,907,000 seedlings during the 1952-53 season, according to a report released by the Southern Pine Association.

The previous high was in the 1949-50 season, when 48,714,000 seedlings were planted. In addition to the record number of trees planted on company lands during the past season, 2,174,000 seedlings were distributed free to farmers by the lumber industry.

More than 97 per cent of the seedlings were purchased by the industry from state-operated nurseries.

Louisiana lumber manufacturers led the 12 southern states for 1952-53 with 26,509,500 seedlings planted. Alabama was second with 9,766,600 and Arkansas third with 7,844,100.

The report shows that more than 68,131 acres of lumber company lands were planted during the past season. In addition, one company in Arkansas reforested 3,175 acres by direct seeding.

The SPA survey, covering a 12-state area, is conducted each year among state foresters and lumber manufacturers.

H. C. Berckes, executive vice president of the Association, pointed out that the results from this year's survey "indicate how southern lumbermen are growing new crops of trees to fill America's lumber needs."

"Southern forests have long been one of the nation's chief suppliers of lumber," he said. "With reforestation on a level indicated in this survey—joined with the modern methods of forest management and protection—our region will continue to be a leading producer of timber products."

In a summary of forest planting during the past five years, the Association reports that 223,697,000 seedlings were used by southern lumber manufacturers. These young trees were planted on almost a quarter of a million acres of company lands. More than 6½ million seedlings were distributed free to other landowners during the five-year period.

B. F. Goodrich Lists Expansion at Tuscaloosa

A \$4,500,000 expansion is underway at the Tuscaloosa, Alabama tire and tube manufacturing plant of The B. F. Goodrich Company, it has been announced by J. Earl Gulick, vice president of The B. F. Goodrich Company Tire & Equipment Division.

The expansion, expected to be completed in late 1954, will boost the Tuscaloosa plant's production capacity by 30%. Additional basic machine capacity for mixing is being provided as well as additional end product capacity.

The first tire rolled off the Tuscaloosa plant's production line in October, 1946. One of the most modern of BFG's five tire and tube plants, the plant turns out passenger car and truck tires and tubes, as well as tubeless tires and white sidewall tires. A tank lining department was also established in 1949.

Texas Eastern Completes Pipeline Expansion

Texas Eastern Transmission Corporation has recently completed a project in Louisiana and Texas which adds 307 miles of 24-inch pipe to its main line, according to an announcement by B. D. Goodrich, vice-president and chief engineer. Designed to supplement and add flexibility to the supply end, this new construction increases the Texas Eastern system to some 4,529 pipeline miles.

The new 24-inch pipeline originates at Provident City, Texas, which is the southern terminus of Texas Eastern's 16-inch line. From this point it extends for 307 miles in a northeasterly direction through Lavaca, Colorado, Austin, Waller, Harris, Montgomery, Walker, San Jacinto, Polk, Angelina, Nacogdoches, St. Augustine, and Shelby counties in Texas and DeSoto, Red River and Bienville parishes in Louisiana to a point of connection with the company's 20-inch pipeline on the north side of the Castor compressor station.

The route of the pipeline crosses eight rivers — the Colorado, Brazos, Trinity,

Neches, Sabine, Red, Angelina, and Attoyac. The Red River crossing is an overhead crossing and is under a long term lease from another pipeline company. All other crossings are underwater and except for the Attoyac, where one 24-inch was laid, two lines, a 24-inch and a 16-inch, were laid under each river as a safeguard against floods.

The new line, which will enable Texas Eastern to obtain gas from the Southwest Texas area, will be supplied at Provident City by Wilcox Trend Gathering System, Inc., a subsidiary of Texas Eastern.

Youngstown Acquires Interest In Oklahoma Firm

The Youngstown Sheet and Tube Company has announced the acquisition of an interest in the Perrault Fibercast Corporation of Tulsa, Oklahoma. This concern, which in the future will be known as The Fibercast Corporation, manufactures glass fiber-reinforced thermo-setting plastic pipe. This product, which is marketed under the trade name "Fibercast," has wide application where full corrosion resistance is required. It will be distributed through Continental Supply Company, The Youngstown Steel Products Company and The Youngstown Steel Products Company of California.

Rockwell Transfers Operation to Tulsa

Rockwell Manufacturing Company is transferring all of its gas industry instrument production from Pittsburgh to its Maenick Division plant in Tulsa, Okla. L. A. Dixon, Jr., vice-president of the firm's Meter and Valve Division, has announced.

When the move is completed, he said, all Rockwell combined record gauges, Emcorcorrectors, flow line provers and flow line indicator meters will be turned out at the Tulsa plant.

FIVE-YEAR FOREST PLANTING RECORD
SOUTHERN LUMBER INDUSTRY
(12 States)

Planting Season	Planted on Company Lands			Free Distribution to Other Landowners		Company Nursery (No.)	Source of Seedlings		Total No. Seedlings (thousands)
	No. Co's.	No. Seedlings (thousands)	Acres Planted	No. Co's.	No. Seedlings (thousands)		State Nurseries	Other	
1948-49	122	27,546.1	28,193	12	496.6	1,152.0	25,393.2	1,497.5	28,042.7
1949-50	153	48,714.4	58,906	33	1,622.3	8,055.0	41,560.4	761.3	50,376.7
1950-51	200	44,386.2	52,303	18	1,100.5	4,270.0	39,269.0	1,947.7	45,486.7
1951-52	210	37,143.9	40,876(1)	27	1,107.8	251.0	36,575.2	1,425.5	38,251.7
1952-53	268	65,907.2	68,131(2)	44	2,174.4	10.2	66,114.5	1,956.9	68,081.6
Total five planting seasons		223,697.8	248,409		6,541.6	13,738.2	208,912.3	7,588.9	230,239.4

(1) In addition direct seeded 200 acres

(2) In addition direct seeded 3,175 acres

Mammoth Fair Scheduled for Houston

Plans for the first large scale international fair of the Atomic Age to open early in 1956 in the heart of the world's new industrial frontier at Houston, Texas, were announced on August 30.

The fair, to be operated by the Houston World's Fair, Inc., a philanthropic institution chartered by the State of Texas with net profits going to recognized national and local educational, charitable and medical research organizations, is dedicated to the promotion of world peace and will be designed to display the latest achievements of mankind against the romantic background of more than 400 years of Western civilization in Texas.

"The Houston World's Fair," said Dr. G. A. LaForge, president of the corporation, "has a four-fold objective: to promote peace through the restoration of normal channels for the conduct of trade and the free exchange of the fundamental concepts of man on culture, religion, science, industry and welfare; to lend impetus to the growth of the Gulf Coast area by acquainting the world with the advantages of these natural resources and favorable climate and Houston's place as a premier city of this rapidly expanding new industrial frontier; to establish here a permanent international trade center, exhibits of a permanent educational and industrial value and a vitally important new recreational area; to

raise needed endowment funds for charitable, educational and medical research institutions."

Dr. LaForge predicted that the Houston World's Fair "will be the biggest and best ever staged—Texans would be content with no less."

The fair corporation has purchased a tract of 935 acres of land adjoining the San Jacinto State Park, on the southeastern outskirts of the city, as a site. In addition the fair has under lease several hundred additional acres including frontage on the Houston Ship Channel.

Dr. William Kemmerer, retiring president of the University of Houston, has been appointed general manager of the fair. Dr. Kemmerer won nation-wide fame as an educator and administrator in building the University of Houston from a junior college with a few hundred students in 1934 to its present status as one of the outstanding educational centers of the country with 13,000 students, buildings and equipment with a net worth of more than \$21,000,000 and an annual operating budget of \$5,000,000.

Mississippi Salt Domes May Yet Prove Valuable

Mississippi salt domes, to date unproductive of the oil, natural gas and sulphur which has been sought from them, may yet prove to be of significant commercial value.

During the past year a major salt-pro-

ducing firm has made investigations concerning several of the more shallow salt domes which reveal that a few of them may be shallow enough to warrant commercial salt mining. The shallowest salt dome yet found in Mississippi is the Richton Dome in Perry County. It is about 500 feet beneath the earth's surface.

There are 48 known salt domes in Mississippi, most of which are the relatively shallow "piercement" type domes which in the coastal regions of Louisiana and Texas have been productive of oil and natural gas.

A number of Mississippi salt dome discoveries have been made by firms drilling for oil. Attempts to establish oil or natural gas production from Mississippi domes continue, but have met with failure so far. The one-well Glazier Field of Perry County produces the only oil obtained from a Mississippi salt dome.

Shallow domes located in Perry, Copiah, Forrest, Lawrence, Lamar, Marion and Jefferson Davis Counties have also been explored unsuccessfully for commercial deposits of sulphur which, when present, are usually found above the salt deposit.

Although future possibilities of oil, gas and sulphur production from Mississippi salt domes are not entirely discounted by past failures, the interest of salt-mining companies attaches a new significance to these structures and holds hope of an additional industry for the state.

HAVE THE BEST IN BIRMINGHAM . . .

Stay at Hotel

Thomas Jefferson



AFFILIATED NATIONAL HOTELS	
ALABAMA	TEXAS
HOTEL ADMIRAL SEMMES.....Mobile	HOTEL STEPHEN F. AUSTIN.....Austin
HOTEL THOMAS JEFFERSON.....Birmingham	HOTEL EDSON.....Bedford
DISTRICT OF COLUMBIA	HOTEL BROWNWOOD.....Brownwood
HOTEL WASHINGTON.....Washington	HOTEL BAKER.....Dallas
INDIANA	HOTEL TRAVIS.....El Paso
HOTEL CLAYPOOK.....Indianapolis	HOTEL CORTEZ.....Galveston
LOUISIANA	HOTEL BUCCANEER.....Galveston
JUNG HOTEL.....New Orleans	HOTEL GALVEZ.....Galveston
HOTEL DESOTO.....New Orleans	HOTEL JEAN LAFITTE.....Galveston
NEBRASKA	CONCHADO COURTS.....Galveston
HOTEL FAXTON.....Omaha	MIRAMAR COURT.....Galveston
NEW MEXICO	HOTEL PLAZA.....Laredo
HOTEL CLOVIS.....Clovis	HOTEL LUBBOCK.....Lubbock
SOUTH CAROLINA	HOTEL FALLS.....Marlin
HOTEL WADE HAMPTON.....Columbia	HOTEL CACTUS.....San Angelo
	HOTEL MENGER.....San Antonio
	ANGELES COURTS.....San Antonio
	VIRGINIA
	HOTEL MOUNTAIN LAKE.....Mountain Lake
	HOTEL MONTICELLO.....Hartford

A paradox of the old South's traditional courtesy and a new day's interpretation of service, Hotel THOMAS JEFFERSON is Birmingham's newest and most modern hotel. Relax in the friendly atmosphere of this fine Affiliated National Hotel . . . your host in Birmingham. Completely air conditioned.



ADMIRAL SEMMES
Mobile, ALA.



WADE HAMPTON
Columbia, S. C.

AFFILIATED NATIONAL HOTELS

Radio and Television in Guest Rooms

FINANCIAL NOTES

United States Plywood Corporation announced on August 19 that its sales for the three months ended July 31, 1953, the first quarter of its current fiscal year, amounted to \$32,450,000, which compared with \$25,082,000 in the corresponding three months last year.

Financial statement of the **Burgess-Manning Company**, Libertyville, Ill., for the six months period ending June 30th, 1953, showing a net profit of \$32,356 before provision for income taxes, was made public on Aug. 21. Net profit after estimated accruals for taxes was \$16,580 on net sales of \$892,013 for the period.

In the first six months of 1952, the company had reported net profit of \$32,421

on net sales of \$968,527, after estimated accruals for taxes.

Burgess - Manning Company, with plants at Libertyville, Chicago and Dallas, Texas, manufactures industrial noise abating equipment, a radiant ceiling that heats or cools and provides acoustical control, and Acousti-Booths, which are doorless, acoustically treated telephone booths.

American Potash & Chemical Corporation has reported net earnings for the six months ending June 30, 1953, of \$1,063,174 compared with \$916,660 for the same period of 1952. After allowance for preferred dividends, earnings amounted to \$2.01 per share on the 431,227 shares of Class A and Class B stocks outstanding, compared with \$1.49 per share for the corresponding 1952 period when 528,390 shares were outstanding.

Sales, including those by the company's **Eston Chemicals Division**, were \$11,268,863 for the first six months of 1953 against \$8,604,046 in the same period of 1952.

The Company also reported net earnings for the second quarter of 1953 of \$551,716, or \$1.05 per share on the Class A and Class B stocks outstanding compared with \$524,224, or 87 cents per share for the same period in 1952.

Class I railroads in the Eastern District of the United States earned a return on net investment of only 3.79 per cent in 1952, according to the 1953 Year Book of Railroad Information, issued last month by the **Eastern Railroad Presidents Conference**. This rate of return was below the average of 4.10 per cent for all Class I railroads in the United States.

The Eastern roads, including those in the Pocahontas Region, showed an increase in their rate of return on investment compared with 1951, however. The 1951 rate for the Eastern roads was only 3.41 per cent.

The Year Book, which is chockfull of statistics about the railroad industry, shows that during 1952 America's Class I railroads received on the average 1.43 cents for transporting a ton of freight for a distance of one mile. The average revenue for carrying a passenger one mile was 2.66 cents.

The Year Book also notes that the Class I roads had tax obligations totaling in excess of a billion and a quarter dollars for 1952. The Eastern roads were obligated for \$458 million of these taxes.

The board of directors of the **Texas National Bank of Houston** has declared a 50-cent quarterly dividend on the 250,000 shares of the bank's \$20 par value common stock, payable October 1 to stockholders of record September 21. E. F. Gossett, chairman, announced last month.

This is the second quarterly dividend of the same amount declared by the Texas National Bank following consolidation of the South Texas National Bank and the Union National Bank under the new name.

In its June 30, 1953, statement of condition, the Texas National Bank had capital of \$5,000,000, surplus of \$5,000,000, and undivided profits of \$1,110,281. Deposits totalled \$200,322,792. Total resources were \$213,204,913.

Lion Oil Company, in an interim statement released Aug. 4, reports that net income of the company for the second quarter, after provisions for taxes on income, was \$2,405,572 or 78 cents per share. In the same period a year ago income was \$2,218,427 or 72 cents per share.


For the first six months of this year income after taxes amounted to \$5,245,858 or \$1.70 per share as compared with \$5,548,122 or \$1.80 per share for the same months of 1952.

Sales and operating revenues of the company, in the six month period, rose to \$47,050,742 from \$44,965,976 a year ago, but operating charges increased to \$38,066,814 from \$35,397,916. Net income before tax provisions was \$8,711,156 as compared with \$9,301,127. Provisions for taxes on income amounted to \$3,465,298 as against \$3,753,005 for the first half of 1952.

SAUEREISEN

HIGH-TEMPERATURE CEMENTS

For laying and coating brickwork, forming refractory shapes or furnace linings on the job, and making patches to existing structures. Write for latest catalog.

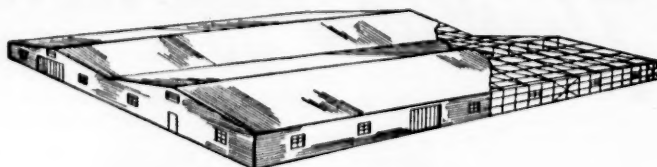


**TRIAL ORDER
FOR REFRACTORY USERS**

Handy quart cans for making comparative tests—5 different cements. **\$6.75**

Sauereisen Cements Company Pittsburgh 15, Pa.

HOLSTEEL BUILDINGS



WE MANUFACTURE BUILDINGS

We learn what you want then make it and put it up for you. Of course we stick to materials and designs we've found to be best. It must be firesafe—economical—durable, or we don't use it.

Building miles of steel buildings and roofs has taught us how to do what you want and need.

You can plan your own HOLSTEEL BUILDINGS with our Bulletin 5201. Ask for it.

HOLSTON STEEL STRUCTURES

Manufacturing Builders

P. O. Box 422

BRISTOL, TENN.

Phone South 3610

Spalding Opening Plant At Easley, South Carolina

On Thursday, August 27, the following statement was released by South Carolina's Governor, James Byrnes:

"I was very much gratified today to learn that A. G. Spalding & Brothers, whose name and trademark are familiar to sports fans throughout the world, has chosen South Carolina as the location for a new plant for the manufacture of their famous baseballs.

"The company has advised me that a pilot baseball stitching plant will be opened at Easley on September 10. Their plan is to train five or six new stitchers each week until a staff of 50 to 100 people are employed. Later, a substantial increase will be made and a large building constructed.

"The Spalding corporation is the third large sporting goods manufacturer to locate in South Carolina in recent years, others being Shakespeare plant in Columbia and the Jantzen plant at Seneca.

"Baseballs made by this company are used in both the National and the American major leagues, in the World Series as well as in regular games. Albert G. Spalding, founder of the concern, was himself a leading player for Chicago. Spalding has also been a leader in the youth development programs afforded by baseball.

"L. W. Bishop, Director of the Research, Planning and Development Board, has been working with the company for some time, and during their investigation, it was my pleasure to meet Mr. Arthur G. Heilmann, assistant vice president, who expressed himself as being greatly pleased with what he found in our State.

"Senator George L. Grantham, of Pickens County, Mr. R. C. McCall, owner of the building to be occupied by the new plant, and the Easley Chamber of Commerce were all exceedingly helpful in making the necessary arrangements to locate the company at Easley.

"I am confident this fine company will receive a warm welcome to South Carolina. . . ."

McAllen, Texas, Offers Inducements to Industry

Two tax reductions at McAllen, Texas, are offered as an inducement to the location of industries.

Total municipal tax reductions at McAllen in the past two years were 35.9 per cent. The newest cut of 10 per cent will go into effect Oct. 1.

The other tax reduction was made through a special action of the Texas Legislature, permitting industrialists and others who make improvements on property in McAllen lying in irrigation districts, to pay off their proportionate share of the bonded indebtedness, plus interest that may accrue through the life of the bonds. In this way the industrialists will only pay the land tax, and pay no irrigation district tax on improvements.

New Plants

(Continued from page 14)

finery in Gulf Coast area South of Houston.

TULSA—Sunray Oil Corp. received bids for cooking unit for refinery at Duncan, Okla.

TULSA—Youngstown Sheet & Tube Co., acquired interest in Perrault Fibercast Corp., manufacturer of glass fibre reinforced plastic pipe.

SOUTH CAROLINA

ANDERSON—American Bakeries let contract to Daniel Construction Co., Greenville, for \$705,000 building. Stevens & Wilkinson, Atlanta, Archts.

BEAUFORT—South Carolina Electric & Gas Co. let contract to R. H. Bouligny, Inc., Charlotte, at \$37,373 for 46 KV transmission line.

BELTON—Keyser Hosiery Mill, S. W. Bridges, Supt., is installing 16 new machines.

CHARLESTON—Southern Bell Telephone Co. let contract to Harrison-Wright Co., Inc., Charlotte, N. C., for \$18,892 underground conduit.

COLUMBIA—Southern Bell Telephone Co. let contract to Wright & Lopez, Inc., Cedartown, Ga., for \$29,945 underground conduit, Forest Drive.

COLUMBIA—The State Co., J. M. Blalock, Pres., let contract to Daniel Construction Co., P. O. Box 2286, Greenville, for \$1,484,905 newspaper plant on site adj. to Carolina Stadium, and facing State Fair Grounds. Robert & Co. Associates, 96 Poplar St., N. W., Atlanta, Ga., Archts.-Engrs.

EASLEY—A. G. Spalding & Brothers to erect new plant for manufacture of baseballs.

GREENVILLE—H. H. Claussen's Sons, Augusta, received bids for addition to bakery. R. H. Longstreet & Assoc., Lewis Plaza, Archts.

SPARTANBURG—General Baking Co., New York, let contract to Bailey-Brazell Construction Co., Greenville, for plant. Cowell, Robinson & Martin, New York City, Archts.

WHITNEY—The Naumkeag Steam Cotton Co., Rudolph C. Dick, Pres., Salem, Mass., will move its entire operation to Whitney by end of 1953.

TENNESSEE

CHATTANOOGA—Ayers Motor Co., 21st & Broad Sts., let contract to L. A. Warlick Contracting Co. for new building. Bianculi & Palm, Archts.

CHATTANOOGA—Southern Chemical Cotton Co. let contract to Mark K. Wilson Co. at \$45,157 for addition to main office.

CLARKSVILLE—City let contract to Birmingham Building Co., Birmingham, at \$1,900,000 for natural gas system.

DAVIDSON COUNTY—Corps of Engineers, Nashville, will receive bids Oct. 15 for 100M kw Old Hickory Hydro-electric power plant, Cumberland River, CIV-6.

MARTIN—City received \$233,623 bid from Modern Welding Co., Owensboro, Ky., for east iron pipe construction of municipal gas system.

MEMPHIS—CITA Enterprises, Inc., let contract to Fred Young, 166 Monroe, for building.

MEMPHIS—B. F. Goodrich Co. of Akron, Ohio, plans \$120,000 addition to distribution center.

MEMPHIS—Memphis Steam Laundry let contract to P. W. Jameson for building. Faires & Sanford, Archts.

MEMPHIS—Moto-Pep, Inc., let contract to John E. Taylor Construction Co. for service station. Estes W. Mann, & William Mann, Associate, Archts.

NASHVILLE—A. Crane Co., subsidiary, plans \$25,000,000 titanium plant.

OAK RIDGE—U. S. Atomic Energy Commission received bids for construction of technical library addition, Inv. No. 401-54-2A.

POWELL STATION—Powells Telephone Co. has REA loan of \$210,000 to construct additional lines and other facilities.

TRISTON—Gibson County Electric Membership Corp. received bids for headquarters building. Hanker & Heyer, Memphis, Tenn., Archts.

UNION CITY—Reelfoot Packing Co., let contract to O'Brien & Padgett for warehouse. Henschel, Everts & Crombie, Archts.

TEXAS

TEXAS—Houston Lighting & Power Co. plans steam-electric station at \$20,000,000 on 700-acre tract near Daytown on Houston Ship Channel.

TEXAS—Texas Company plans \$20,000,000 expansion program.

(Continued on page 62)



Power
TO FIT THE
JOB

Power
TO FIT THE
MACHINE

WISCONSIN-POWERED
HEMCO-MOTIVE
Switching Unit
Moves 3 Cars at a Time!

Here's a practical "locomotive" for switching and spotting cars on your sidings — at a great saving in man-hours, plus increased safety and ever-ready convenience . . . at an operating cost of about 1 1/2 gals. of gasoline per hour!

A 25 hp. Model VF4 Wisconsin Heavy-Duty Air-Cooled Engine furnishes dependable power for all phases of HEMCO-MOTIVE operation . . . off-track mobility, climbing up and over the rails, operating the hydraulic lift that "couples" the unit to the car, and handling all switching and spotting maneuvers . . . delivering a 7400-lb. drawbar pull through 4-wheel drive, moving up to 3 loaded freight cars at a time, at a rail speed of 150 ft. per minute! Hemco Manufacturing Inc., Argonia, Kansas, is the builder. It's another typical Wisconsin Air-Cooled Engine original equipment application . . . again illustrating how these fine engines fit both the JOB and the MACHINE.



WISCONSIN MOTOR CORPORATION

World's Largest Builders of Heavy-Duty Air-Cooled Engines

MILWAUKEE 46, WISCONSIN

SOUTHERN LOCATION WANTED FOR MANUFACTURING PLANT

Established northern light metal fabricating company is interested in locating in the South. Company has strong financial condition and good credit rating. Company will provide its own machinery, equipment and working capital, and wants community to build plant of approximately 75,000 square feet on long term lease and purchase basis. Company presently employs 70 with annual sales of \$2,000,000.

Give full particulars, write No. 9804

c/o MANUFACTURERS RECORD, Baltimore 3, Md.

(Continued from page 61)

ALVIN—Texas Co. let contract to O. L. Allen Co., 1922 Wentworth Ave., Houston, for service station, N. E. cor. Blum & Gordon Sts.

AMARILLO—Super Service Station received bid from Panhandle Engineers & Contractors, for \$68,985 service station. O. L. Johns, Amarillo Bldg., Archt.

AUSTIN—Austin Baking Co., 307 Baylor St., let contract to Gilbert Falbo Co., 107 Morales St., San Antonio, for addition to present building.

AUSTIN—Superior Dairies, 600 E. First St., let contract to J. C. Evans, Box 4054, for \$67,570 addition to present building. Kuehne, Brooks & Barr, Perry-Brooks Bldg., Archts.

BAYTOWN—Humble Oil & Refining Co., P. O. Box 2180, Houston, let contract to W. S. Bellow Construction Corp., Box 2132, Houston, for conveyor building at Baytown Refinery site.

BAYTOWN—Humble Oil & Refining Co., J. R. Sederholm, Box 2180, Houston, let contract to W. S. Bellow Construction Corp., P. O. Box 2132, Houston, for addition to storage plant.

BEAUMONT—William Cameron & Co. received bid from Reggie Smith for \$62,288 warehouse addition, 1850 Gladys St. Spicer & Bush, 503 Amicable Bldg., Waco, Archts.-Engrs.

DALLAS—Apex Supply Co., & Lerer Realty Co., received bid from Connell Construction Co., 2110 Hawes St., for \$163,420 office and warehouse, Oak Lawn and Irving Blvd. George W. Edwards, 1509A Cochran, Archt.

DALLAS—Dallas Terminal Railway and Union Depot Co., let contract to J. J. Fitch Construction Co., 6834 Harry Hines, for \$60,000 freight building.

DALLAS—General American Oil Co. of Texas let contract to Cowdin Bros., 411 S. Haskell, for \$3,000,000 oil center, Milton St.

bet. Central Expressway and Greenville. M. MacCammon, Southland Life Annex Bldg., Dallas, Archt.

DALLAS—Lone Star Gas Co., 301 S. Harwood, received bid from Buckner & Pittman, P. O. Box 923, for \$73,680 storage shed, 1133 Madison. Gill & Harrell & Associates, 1913 San Jacinto St., Archts.-Engrs.

DALLAS—Pittsburgh Plate Glass Co. let contract to J. E. Morgan & Sons, P. O. Box 6029, for warehouse and office building.

FORT WORTH—Mid-Continent Supply Co. received bid from M. W. Bogart, 5801 Calmont, for \$59,960 alterations and addition to Stratoflex plant, Charles O. Chromaster, 1401 Rio Grande, Archt.

FORT WORTH—Sloom Lumber Co., 701 E. Vickery, let contract to J. R. Murphy, 2414 Cypress, for \$30,000 warehouse.

FORT WORTH—Southwestern Bell Telephone Co., K. A. Ganssle, Chief Engr., 308 S. Akard St., let contract to J. R. Murphy, 2414 Cypress, for \$40,708 office building. Smith & Mills, Mercantile Bank Bldg., Dallas, Archts.

FORT WORTH—T & P Railroad let contract to Quisile Construction Co., 417-19 Passenger Bldg., for \$116,000 warehouse addition.

GAINESVILLE—Southwestern Bell Telephone Co., K. A. Ganssle, Chief Engr., 308 S. Akard St., received bids for office building. Jameson & Merrill, 820 N. Harwood, Dallas, Archts.

HARLINGEN—Radio Station KGBS let contract to Valley Weathermakers, Inc., for air-conditioning station. Cocke, Bowman & York, 1220 W. Harrison, Archts.

HOUSTON—William Cameron & Co., Inc., received bids for warehouse, 1901 Cullen Boulevard.

HOUSTON—Finnigan Estates received bids for \$300,000 auto sales and service building. Mahn, McGowan & Travis Sts. Harvin C. Moore, 2006 W. Alabama, Archt.

HOUSTON—Hawthorne-Weaver Co. received bid from Ganshirt & Sims, Inc., 525 Euclid, for office building. Wilson, Morris & Crain, 3330 Graustake, Archts.

HOUSTON—Houston Belt & Terminal Railroad Co., 800 Milby St., plan \$45,000 shop building.

HOUSTON—Humble Oil & Refining Co. let contract to W. S. Bellow Construction Corporation for addition to storage plant building. Baytown Refinery.

HOUSTON—Produce Building Corporation let contract to Curlee Construction Co., 5911 Calhoun, for warehouse, 3100 Produce Terminal; est. cost \$2,200,000.

HOUSTON—Straus-Frank Co., 4000 Leeland Ave., let contract to Tellepsen Construction Co., P. O. Box 2536, for \$80,000 addition to present building. Lloyd & Morgan, 4605 Montrose Blvd., Archts.

HOUSTON—Wald Transfer & Storage Co., 812 Live Oak St., let contract to Hubbard Construction Co., 1507 Delano St., for \$250,000 warehouse.

KUTZE—Southwestern Bell Telephone Co., K. A. Ganssle, Chief Engr., 308 S. Akard St., Dallas, let contract to O. P. Roden, for commercial dial office.

LIBERTY—McLendon Motor Co., Ford Agency, received bids for agency building. Lowell Lammers, P. O. Box 3220, Baytown, Archt.

LONGVIEW—Southwestern Bell Telephone Co., 308 S. Akard St., Dallas, plans office building, adjoining Longview News Co. building on East.

LUBBOCK—Alderson Cadillac Co., W. G. Alderson, Pres., 814 Avenue H, received bid of \$233,432 from W. B. Abbott, Jr., 1101 20th St., for sales and service building, 1800 Avenue K. Atcheson & Atkinson, 204 Sanford Bldg., Archts.

LUBBOCK—Burlington Lines, 803 Fort Worth Club Bldg., let contract to W. G. McMillan & Son, 709 Avenue J, for freight building. Wyatt C. Hedrick, 1005 First National Bank Bldg., Archt.-Engr.

LUBBOCK—Fort Worth & Denver Railways Co., 803 Fort Worth Club Bldg., let contract to W. G. McMillan & Son, 709 Avenue J, for freight office and warehouse. Wyatt C. Hedrick, 12th floor T & P Passenger Bldg., Archt.-Engr.

LUBBOCK—Humble Oil & Refining Co., 1501-9 19th St., let contract to Norcross Construction Co., Snyder, for \$26,500 service station.

LUBBOCK—The Plains Radio Broadcasting Co. plans studio building. Atcheson & Atkinson, Sanford Bldg., Archts.

ODessa—Vinson Supply Co., 1609 W. 2nd, let contract to Farrel & Rodman for \$55,000 warehouse.

SAN ANTONIO—United States Automobile Association, Col. C. E. Cheever, Genl. Mgr., 1400 E. Grayson St., plans headquarters building. Phelps, Dewees & Simmons, 1501-6 Majestic Bldg., & Allee B. & Robert M. Ayres, Transit Tower, Associated Archts.

TEXAS CITY—Texas City Terminal Railroad Co. received bid from LeBlanc, Inc., P. O. Box 351, Houston, for \$106,861 office building and warehouse.

TYLER—Cotton Belt Railroad, c/o A. J. McKenzie, Pres., St. Louis, Mo., plans \$1,250,000 office building. Wyatt C. Hedrick, T & P Passenger Bldg., P. O. Box 765, Fort Worth, Archt.-Engr.

WHITEWRIGHT—Southwestern Bell Telephone Co., K. A. Ganssle, Chief Engr., 308 S. Akard, Dallas, received bids for commercial dial building.

VIRGINIA

BATH COUNTY—Bare Electric Cooperative received bids for headquarters building. Millboro, Daley Craig, Waynesboro, Va., Archt.

FLUVANNA COUNTY—James River Pulp & Paper Co. issued charter by State Corporation Commission to start new business early in 1954.

FREDERICKSBURG—Fredericksburg Distributing Co., let contract to L. C. Mitchell for \$36,175 warehouse. J. B. Violette, 612 Wolfe St., Archt.-Engr.

HOPEWELL & BERMUDA HUNDREDS—Allied Chemical and Dye Corporation let contract to Northside Electric Co., Richmond, for plant.

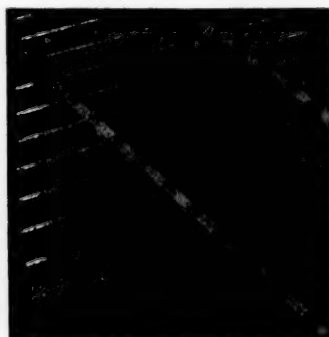
RICHMOND—Branch & Co., 1015 E. Main St., received bids for alterations to office building. Carl M. Lindner, Jr., 13 S. Second St., Archt.

WEST VIRGINIA

FAYETTE COUNTY—New York Central Railroad let contract to Codell Construction Co., Winchester, Ky., for 14 miles railway planned to open huge new bituminous coal field.

HUNTINGTON—International Nickel Co. let contract to Austin Co., Cleveland, Ohio, at approx. \$1,500,000.

NATRIUM—Columbia-Southern Chemical Corporation, E. T. Asplundh, Pres., plans constructing ammonia producing facility.



GARY WELDED GRATING

Send for attractive paper-weight sample, which is yours for the asking. Catalogues upon request.

Square edge bars for safe footing.
Hexagonal cross bars for neat appearance.

Gary-Riveted Grating :: Gary Stair Treads
STANDARD STEEL SPRING COMPANY

Open Steel Floor Grating Division

4001 East Seventh Ave., Gary, Indiana

Meat Packing Plant Planned for Jackson, Miss.

Swift & Company, through its president John Holmes, has announced plans for a modern meat packing plant to built at Jackson, Miss.

Construction is scheduled to begin later this year, and plans call for operations to start in the fall of 1954. Swift purchased a 20-acre site in South Jackson in 1946.

The proposed new plant will employ 125 persons, and will have facilities for livestock dressing, cooling and freezing. Other buildings will include a boiler and engine room and mechanical shop, office, truck repair garage, utility unit with dressing rooms, and livestock holding pens.

For Sale

P & H TRAVELING CRANE

15 ton composed of two 7½ ton trolleys; Span FB girders, 88'4"; Lift 47'6". Full Electrics, 230 V DC. (A good crane.)

Also COMPRESSOR— HIGH EFFICIENCY

Nordberg 1500 CFM, 90 PSI. (A wonderful unit, complete and completely rebuilt.)

A. JAY HOFFMAN CO.
Narberth, Pennsylvania

Two—2 Ton Capacity. Yale & Towne Electric Truck Cranes. Excellent. One—12,000# capacity, Hyster Straddle Carrier; 57" x 66". Excellent.

WEBER AND COMPANY
P. O. Box 8037, Chattanooga 11, Tenn.

FACTORY SPACE FOR RENT

Brick building 33,000 sq. ft. Complete sprinkler system, railroad siding, new heating plant, long lease available at low rental.

Box 5020, Biltmore, N. C.
Phone 6407 Asheville, N. C.

Business Opportunities

Interested in wholesale-retail distribution business covering the two Carolinas or more, branch office in Charlotte, North Carolina, by a man with 20 years of top-notch experience in wholesale hard goods distribution, local and field organization, sales promotion, sales direction, sales training, selling, and advertising from Philadelphia to Jacksonville. What have you to offer? (No promoters — No brokers — Principals, only.) All contacts confidential. Write No. 9805, c/o Manufacturers Record, Baltimore 3, Md.

Inventions for Sale

MANUFACTURERS—Write for our FREE Classification Sheet of Inventions for Sale, covering 135 main subjects, and in one or more of which you will doubtless be interested. ADAM FISHER CO., 578 Enright, St. Louis, Mo.

Patent Attorneys

EATON & BELL
PATENT ATTORNEYS
904 Johnston Bldg., Charlotte, N. C.
1149 Munsey Building, Washington, D. C.

ELECTRIC MOTORS & GENERATORS

— New & Rebuilt —

**A.C. & D.C. — Up to 1000 H.P.
Large Stock — Full Guarantee**

★ IMMEDIATE SHIPMENT ★

Our 46th Year of Service

Catalog and Stock Lists on Request

ARTHUR WAGNER CO.

Randolph & Ogden—Chicago 7, Ill.

MOTOR GENERATOR SETS

750 KW Allis.	720 RPM 250 V. Syn.	3/60/440
400 KW West.	720 RPM 600 V. Syn.	3/60/2300 v.
300 KW G.E.	1200 RPM 250 V. Syn.	2300/4000 v.
240 KW G.E.	1200 RPM 250 V. Syn.	2300/4000 v.
225 KW G.E.	1200 RPM 125 V. Syn.	2300/4000 v.
150 KW G.E.	1200 RPM 250 V. Syn.	2300/4000 v.
100 KW G.E.	1200 RPM 250 V. Syn.	2300/4000 v.

A. C. MOTORS

HP	VOLTS	MAKE	TYPE	SPEED	WDG.
500	2200	G.E.	MT	450	S.R.
400	2200	G.E.	MT	450	S.R.
400	440	West.	CW	720	S.R.
200	2200/440	West.	CW	600	S.R.
150	220/440	G.E.	ATI	600	Syn.
100 (2)	440	G.E.	IM	450	S.R.
100	440	West.		800	Syn.

Large stock of smaller A.C. motors

D.C. MOTORS—1 to 1000 HP Any Volts and Speed

MOORHEAD ELECT. MACH'Y CO.
P. O. Box 7991R — Pittsburgh 16, Pa.

DAVIDSON
PIPE COMPANY INC.
FORMERLY
ALBERT & DAVIDSON PIPE CORP.
ONE OF THE LARGEST STOCKS IN THE EAST
Seamless and Welded ½" to 26" O.D.
All wall thickness Manufactured.
Specialty large sizes.
Cutting — Threading — Flanging —
Fittings — Valves.
Call GEDNEY 9-6300
50th St. & 2nd Ave., B'klyn 32, N. Y.

WORLD'S LARGEST INVENTORY

FREE CATALOG
MOTORS—GENERATORS—TRANSFORMERS
New and Guaranteed Rebuilt
1 H.P. to 2500 H.P.
ELECTRIC EQUIPMENT CO.
P. O. BOX 51, ROCHESTER 1, N. Y.

1—6'x50" Rotary Steam Dryer
1—10" D&K Shear; 10" Pwr. Brake
1—1000 & 5000 KW Turb. Gen. Sets
1—500 KVA 480 V. Eng.-Gen. Set
2—250 HP Single Drum WT Boilers
2—750 HP B&W Sectional Header WTs
1—300 HP, 1200 RPM Al. Ch. Motor
1—50'x18" Wide Belt Conveyor
H. & P., 6719 Etzel, St. Louis 14, Mo.

STORAGE & PRESSURE TANKS LOCATED MO.—FLA.—N.J. & CONN.

8—12,000, 17,000 & 20,000 Gal. 90 lb.
16—10,000, 15,000 & 20,000 Gal. Storage
9—42,000, 120,000 & 240,000 Gal. Stg.
10—10,000 Gal. RR Car Tanks

TANKS BOUGHT & SOLD
LESTAN CORP., Rosemont, Pa.

WANTED—Machinery & Plants

Crushing, Grinding, Filtering, Screening and Rotary Drying Machines. Will consider set-up units or plants, for outright purchase or for continuing operation.

P. O. Box 1351, Church St. Station
New York 8, N. Y.

SUMMER SPECIAL

Inspect at Claridge Hotel,
Atlantic City, New Jersey.

3—250 KVA Ames Vertical Unitflow Steam Engine Generators, 400 rpm, 3/60/240 volt, 140 lbs. initial pressure, 5 lbs. back pressure; each with exciter, switchboard, condition perfect, immediately available; send for Bulletin SEG-5223 and outline drawing A-8394 and photos. Priced right as space is needed.

THE O'BRIEN MACHINERY CO.
PHILADELPHIA'S LARGEST MACHINERY DEALERS AND EXPORTERS

1527 N. DELAWARE AVE., PHILADELPHIA, PA.
Bell Phone: GA 6-1150

FOR SALE

AT A TREMENDOUS SAVING NEW MODERN INCINERATOR

Morris & Boulger incinerator designed to burn 24 tons per 24-hr. period, oil fired with Diesel driven blower. All packed in boxes for erection. Price and detailed information on request.

DALTON SUPPLY CO.

719—16th Ave. Belmar, N. J.

10' BETTS

VERTICAL BORING MILL

31/8" FOSDICK

HORIZONTAL BORING MILL

108" Spindle to Outboard Support

MANY OTHER MACHINES IN STOCK

CLARENCE J. O'BRIEN
1032 COMMERCIAL TRUST BLDG.
PHILADELPHIA 2, PA.
Phone—Rittenhouse 6-5467

CASH

FOR USED TRANSFORMERS

Convert your used transformers to cash! Send us a description of them TODAY.

Transformers and Coils built to your specifications. Send blueprints for prompt quotation.

**TRANSFORMERS BOUGHT,
SOLD AND REPAIRED**

THE ELECTRIC SERVICE CO.

5317 Metzel St., Cincinnati 41, Ohio

FOR SALE

1—Complete lime hydrating plant.
8' x 80" and 7½' x 120" kilns.
42" x 16", 36" x 16" and 24" x 12" crushing rolls.
5' x 50" dryer.
New Dryers—Kilns—Coolers.
Used & rebuilt grinding & crushing machinery.
1—#1 Raymond Mill, latest type.
W. P. HEINEKEN, INC., 50 Broad St., N. Y.



Ford, Bacon & Davis Engineers

CONSTRUCTION
MANAGEMENT

NEW YORK

APPRAISALS
REPORTS

CHICAGO : LOS ANGELES

Investigations
and
Reports



Appraisals
Management

DESIGN • ENGINEERS • CONSTRUCTION

Industrials, Public Utilities, Process Plants
ENGINEERING CONSULTANTS

DAY & ZIMMERMANN, INC.
PHILADELPHIA

NEW YORK

CHICAGO

PALMER AND BAKER, INC.

CONSULTING ENGINEERS — ARCHITECTS
NAVAL ARCHITECTS — MARINE ENGINEERS

Surveys—Reports—Design—Supervision—Consultation
Transportation and Traffic Problems
Tunnels—Bridges—Highways—Airports
Industrial Buildings
Waterfront and Harbor Structures
Graving and Floating Dry Docks
Vessels, Boat and Floating Equipment
Complete Soils, Materials and Chemical Laboratories

MOBILE, ALA.

NEW ORLEANS, LA.
WASHINGTON, D. C.

HOUSTON, TEXAS

WILEY & WILSON CONSULTING ENGINEERS

Steam and Electric Distribution, Power Plants, Municipal Planning, Water Supply,
Sewerage, Sewage and Water Treatment, Incinerators, Streets and Pavements, and
Airports, Industrial Plants, Reports — Plans — *Branch Office*
Main Office 905 Peoples Bank Bldg.
Lynchburg, Virginia

711 West Main St.
Richmond 20, Virginia

WOOTEN & WOOTEN ENGINEERS & ARCHITECTS

INDUSTRIAL BUILDINGS — WAREHOUSES — STEAM PLANTS
AIRFIELDS — WATER & SEWAGE WORKS
213-217 LATTA ARCADE
CHARLOTTE, N. C.

Rader Engineering Co.

Water Works, Sewers, Refuse Disposal,
Ports, Harbors, Flood Control, Bridges,
Tunnels, Highways, Airports, Traffic,
Foundations, Buildings, Reports,
Investigations, Consultations.

111 N.E. 2nd Ave., Miami 32, Florida

Harrington & Cortelyou

Consulting Engineers
Frank M. Cortelyou

E. M. Newman F. M. Cortelyou, Jr.
Mobile and Fixed Bridges of All Types,
Foundations, and Related Structures.
1094 Baltimore Kansas City 6, Mo.

Wiedeman and Singleton

Consulting Engineers
WATER WORKS, SEWERS, SEWAGE
DISPOSAL, APPRAISALS, VALUA-
TIONS, REPORTS
1305 Citizens & Southern National
Bank Building
ATLANTA, GA.

Gustave M. Goldsmith

Consulting Engineer
General Structures
Plant Layout
Design—Investigation—Quantity Survey
1784 Bella Vista
CINCINNATI 37, OHIO

International Engineering Company, Inc.

ENGINEERS
Investigations — Reports — Design
Procurement — Field Engineering
Domestic and Foreign
74 New Montgomery St.,
San Francisco 5, California

Watson and Hart

Consultants for Civil, Electrical, Mechan-
ical and Textile Engineering Problems.

GREENSBORO NORTH CAROLINA

Sverdrup & Parcel, Inc.

Consulting Engineers
Bridges, Structures and Reports,
Industrial and Power Plant Engineering.
Syndicate Trust Bldg., St. Louis 1, Mo.
220 Bush St., San Francisco 4, Calif.

Hunting, Larsen & Dunnells

Engineers
Industrial Plants—Warehouses
Commercial Buildings—Steel and
Reinforced Concrete—Design and
Supervision—Reports
1150 Century Bldg., Pittsburgh 22, Pa.

LAW-BARROW-AGEE LABORATORIES, INC.

Soils Engineers and Consultants
Soil Testing—Soil Boring—Rock Drilling
—Load Testing—Field Control—Engi-
neering Studies—Chemical Analysis—
Physical Testing
Box 1558, Atlanta 1, Ga.
Serving the entire South

WIGHT AND COMPANY

Airfields — Pavements — Sewerage
Surveys — Reports — Municipal
Improvements
Consulting Engineers
Downers Grove, Ill.

ROBERT AND COMPANY ASSOCIATES

Architects and Engineers

ATLANTA

DESIGN • MODERNIZATION STUDIES • APPRAISALS
MACHINERY LAYOUTS • AIR CONDITIONING
POWER PLANTS

FREDERICK SNARE CORPORATION

Engineers—Contractors

HARBOR WORKS • BRIDGES • POWER PLANTS •
DAMS • DOCKS AND TERMINALS.

DIFFICULT AND UNUSUAL FOUNDATIONS A SPECIALTY.

233 BROADWAY, NEW YORK CITY 7

HAVANA, CUBA; LIMA, PERU; BOGOTA, COLOMBIA; CARACAS,
VENEZUELA; SAN JUAN, PUERTO RICO; GUAYAQUIL, ECUADOR.

RUMMEL, KLEPPER & KAHL

ENGINEERS

DESIGN—INVESTIGATIONS—REPORTS
Industrial Plant Development and Design
Water Treatment & Sewage Disposal Plants
Industrial Waste Disposal and Treatment Plants
Bulk Material Plants & Machinery Layout
Roads, Bridges, and Railroad Facilities
1021 NORTH CALVERT STREET BALTIMORE 2, MARYLAND

ASSOCIATED INDUSTRIAL ENGINEERS

Ben W. Hopkins CONSULTANTS W. Terry Feild
INVESTIGATIONS DESIGN REPORTS APPRAISALS
CONSTRUCTION & PRODUCTION CONTROL
COMMERCIAL — INDUSTRIAL — MUNICIPAL
SALINGER BLDG., SUITE 314
NORTH LITTLE ROCK, ARK.

Frederic R. Harris, Inc.

CONSULTING ENGINEERS

F. H. Dechant, E. J. Quirin,
E. H. Harlow

Piers and Bulkheads
Foundations, Soil Mechanics
Sanitary and Industrial Waste Disposal
Water Supply, Flood Control
Power, Industrial Plants, Buildings
27 William Street New York
3 William Street Newark
Fidelity Phila. Trust Bldg. Philadelphia
Ferry Bldg. San Francisco

Toledo Testing Laboratory

ENGINEERS—CHEMISTS

Concrete — Soils — Asphalt
Inspection Research
Tests Development
Foundation Investigation
Borings — Diamond Drilling —
Load Tests
Soils Mechanics Laboratory
1810 North 12th St. Toledo 2, Ohio

Parsons, Brinckerhoff, Hall & Macdonald

Engineers

Bridges, Highways, Tunnels, Airports,
Traffic and Transportation Reports,
Subways, Harbor Works, Dams, Canals,
Power Projects, Industrial Buildings,
Housing, Sewerage and Water Supply.

51 Broadway New York 6, N. Y.

WHITMAN, REQUARDT AND ASSOCIATES

ENGINEERS — CONSULTANTS
Civil — Sanitary — Structural
Mechanical — Electrical
Reports, Plans, Supervision, Appraisals
1304 St. Paul St., Baltimore 2, Md.

Howard, Needles, Tammen & Bergendoff

Consulting Engineers

Bridges, Structures, Foundations
Express Highways
Administrative Services
1805 Grand Avenue 55 Liberty Street
Kansas City 8, Mo. New York 5, N. Y.

W. W. Slocum & Co.

ENGINEERS
Industrial — Design — Management
National Newark Building
744 Broad St., Newark 2, N. J.

SANDERSON & PORTER

ENGINEERS AND
CONSTRUCTORS




VIRGINIA ENGINEERING COMPANY, INC.
Government — INDUSTRIAL — Municipal
GENERAL CONTRACTORS
NEWPORT NEWS, VIRGINIA

HOOSIER ENGINEERING COMPANY
Erectors of Transmission Lines
1384 HOLLY AVE., COLUMBUS, OHIO

Algernon Blair, Inc.
General Contractors
FIRST NATIONAL BANK BUILDING
MONTGOMERY, ALA.

Duval Engineering &
Contracting Co.
General Contractors
FOUNDATION BORINGS
For Engineers and Architects
Jacksonville, Florida

**FROEHLING & ROBERTSON,
INC.**
Inspection Engineers and Chemists

RICHMOND  VIRGINIA

**HARDAWAY CONTRACTING
COMPANY**

Engineers Contractors
Water Power Development, Bridges
COLUMBUS, GEORGIA

GEMAR ASSOCIATES
CONSULTING
**MATERIALS HANDLING
ENGINEERS**
Over 20 Years Experience
Greenwich, Connecticut

**ARCHITECTS!
CONTRACTORS—ENGINEERS**

*This space can be yours for only \$3.50
per month. For further details write:*

MANUFACTURERS RECORD
Baltimore 3, Md.

Bristol Steel & Iron Works, Inc.
DESIGNERS — FABRICATORS — ERECTORS
STRUCTURAL STEEL



For Buildings, Bridges and All Industrial Purposes
BRISTOL, VIRGINIA-TENNESSEE
Capacity: 1500 to 2000 tons per month.

NEW SALES LEADS

5 Days a Week

The **DAILY CONSTRUCTION BULLETIN**, published 5 days a week, carries advance, accurate news on construction projects and the location of new industrial enterprises involving an expenditure of \$35,000 and more in the 16 Southern states.

This prompt news service enables you to reach "Live Wire" prospects at the proper time in selling services, materials, supplies or equipment. It is an excellent source of information for increasing your volume of profitable sales.

SPECIAL OFFER
3 MONTH SUBSCRIPTION \$5.00

DAILY CONSTRUCTION BULLETIN

Published by
MANUFACTURERS RECORD PUBLISHING CO.
Baltimore 3, Maryland

THE BELMONT IRON WORKS

Engineers-Fabricators-Erectors-Contractors-Exporters

STRUCTURAL STEEL
BUILDINGS & BRIDGES
RIVETED — ARC WELDED

SHOPS: PHILADELPHIA — EDDYSTONE — ROYERSFORD

Cable Address — Beliron



Main Office—Philadelphia 46, Pa.

New York Office—44 Whitehall St., N. Y. 4, N. Y.

POWER PLANTS—WATER WORKS

Contractors
BURFORD, HALL & SMITH
140 Edgewood Ave., N. E.
Atlanta, Georgia

GLAMORGAN
PIPE & FOUNDRY CO.

LYNCHBURG, VA.

Ornamental and Industrial



**PERFORATED
METALS**



*We carry a large stock for
immediate shipment.
Send for Our Catalogue*

Manhattan Perforated Metal Co., Inc., 43-17 37th St., L. I. City, N. Y.

QUALITY HOT DIP GALVANIZING

JOSEPH P. CATTIE & BROTHERS INC.

2520 East Hargett Street

Phone: RE 9-8911

Philadelphia 25, Pa.

Fabricated Lead and Polyethylene lined equipment for the Rayon, Chemical, Textile, By-Product Coke, and Plating Industries.

SOUTHERN LEAD BURNING CO.

ATLANTA 2, GEORGIA

P. O. Box 4627

Phone WA 2576



PERFORATED METALS
Industrial & Ornamental
ARCHITECTURAL GRILLES

*Write for complete
catalogs giving hole
sizes, open areas,
gauge limits, etc.*

*Send us
your
inquiries*

Diamond Mfg. Co.
Box 42, Wyoming, Pa.

INDEX FOR BUYERS

Page Numbers Indicate Where Products Can Be Found

Appraisals	22	Galvanizing	14, 55, 65	Professional Directory	64, 65
Architects	64	Grating (Steel)	62	Railroads	23, 26
Bolts and Nuts	69	Hotels	59	Roofing	24
Bridges	14, 25, 65	Lead Installations	65	Screens	67
Buildings (Steel)	57, 60, 67	Lumber (Creosoted)	24, 67	Sheets (Steel, Galvanized)	20, 66
Business Consultants	64	Lumber (Salt Treated)	24	Sites (Industrial)	
Cements (Industrial)	62	Machinery (New and Second- Hand)	63	3, 12, 14, 16, 23, 26, 53	
Chemists	64, 65	Metals (Non-Ferrous)	56	Steel Fabricating	4, 8, 14, 25, 65
Coal	21	Perforated Metals	65, 67	Steel Products	2, 6, 20, 55, 66, 69
Constructors	64, 65	Petroleum Products	17	Steel (Stainless)	6, 66
Contractors	64, 65	Piling, Poles, etc. (Creosoted)	24, 67	Structural Steel	4, 14, 25, 65, 66
Doors (Rolling Steel)	5, 70	Pipe (Cast Iron)	65	Tanks and Towers	15, 67
Dredging Contractors	64	Pipe Forms	67	Telephone Service	51
Engineers	64, 65	Plastics	19	Treads (Stair)	22, 62
Engines	61	Power Plants	65	Tubing (Steel)	20, 66
Flooring (Steel)	22			Water Supply	65

STEEL

In Stock—Prompt Delivery

Our stocks of Certified Quality Steel are large and becoming more complete. Quick, dependable service is assured.

NEARBY STOCKS INCLUDE:

BARS—Carbon & alloy, hot rolled & cold fin., reinforcing

STRUCTURALS—I beams, H beams, channels, angles

PLATES—Sheared & U. M. Inland 4-Way Floor Plate

SHEETS—Many types

TUBING—Seamless & welded mechanical & boiler tubes

STAINLESS—Allegheny sheets, plates, bars, tubes, etc.

BABBITT—bearing metal

MACHINERY & TOOLS—for metal fabrication

For a single piece or a carload, call our nearest plant. Joseph T. Ryerson & Son, Inc. Plants: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee, St. Louis, Los Angeles, San Francisco, Seattle and Spokane.

RYERSON



- Custom Built
- Low Initial Cost
- Lowest Maintenance
- 100% Salvage

WRITE FOR
CATALOG

Experience and sound engineering are the best foundation for steel buildings. Consult ALLIED STEEL before you buy!

ALLIED STEEL PRODUCTS CORP.
2100 N. LEWIS
TULSA, OKLAHOMA



STEEL BUILDINGS

**They Offer You Most
At Less Cost**

You can get an ALLIED STEEL custom built building for almost every purpose. Constructed of standard sections, the completed job costs less because there's no wastage of material. ALLIED STEEL buildings are weather-tight, fire-resistant, earning the user a much lower insurance rate. For an economical, durable, most attractive building, buy ALLIED STEEL. They are furnished insulated when desired.

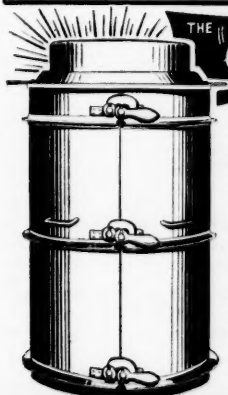


"SERVING THE SOUTH"

Storage tanks — Pressure vessels
Welded steel plate construction

BUFFALO TANK CORPORATION

Fairfield Plant — P. O. Box 475
Baltimore, Maryland



THE *Quinn Standard*

FOR CONCRETE PIPE

The Quinn Standard is known as the best the world over, wherever concrete pipe is produced and used. Backed by over 35 years' service in the hands of hundreds of Quinn-educated contractors, municipal departments and pipe manufacturers who know from experience that Quinn pipe forms and Quinn mixing formulas combine to produce the finest concrete pipe at lowest cost.

QUINN HEAVY DUTY PIPE FORMS

For making pipe by hand methods by either the wet or semi-dry processes. Built to give more years of service—sizes for pipe from 10" up to 120" and larger—tongue and groove or bell end pipe at lowest cost.

WRITE TODAY. Complete information, prices, and estimates sent on request.
Also manufacturers QUINN CONCRETE PIPE MACHINES

QUINN WIRE & IRON WORKS 1605 12TH ST BOONE, IA

PERFORATED METALS

For every purpose, Industrial and Ornamental

Steel, Stainless Steel, Monel Metal, Brass, Copper, Bronze, Aluminum, Zinc, Lead, Tin Plate and all other metals or materials perforated as required, and for all kinds of screens. Send for new Catalog.

CHARLES MUNDT & SONS
400 Johnston Ave., JERSEY CITY, N. J.

EPPINGER & RUSSELL CO.

WOOD PRESERVERS SINCE 1878

80 EIGHTH AVENUE
NEW YORK 11, N. Y.

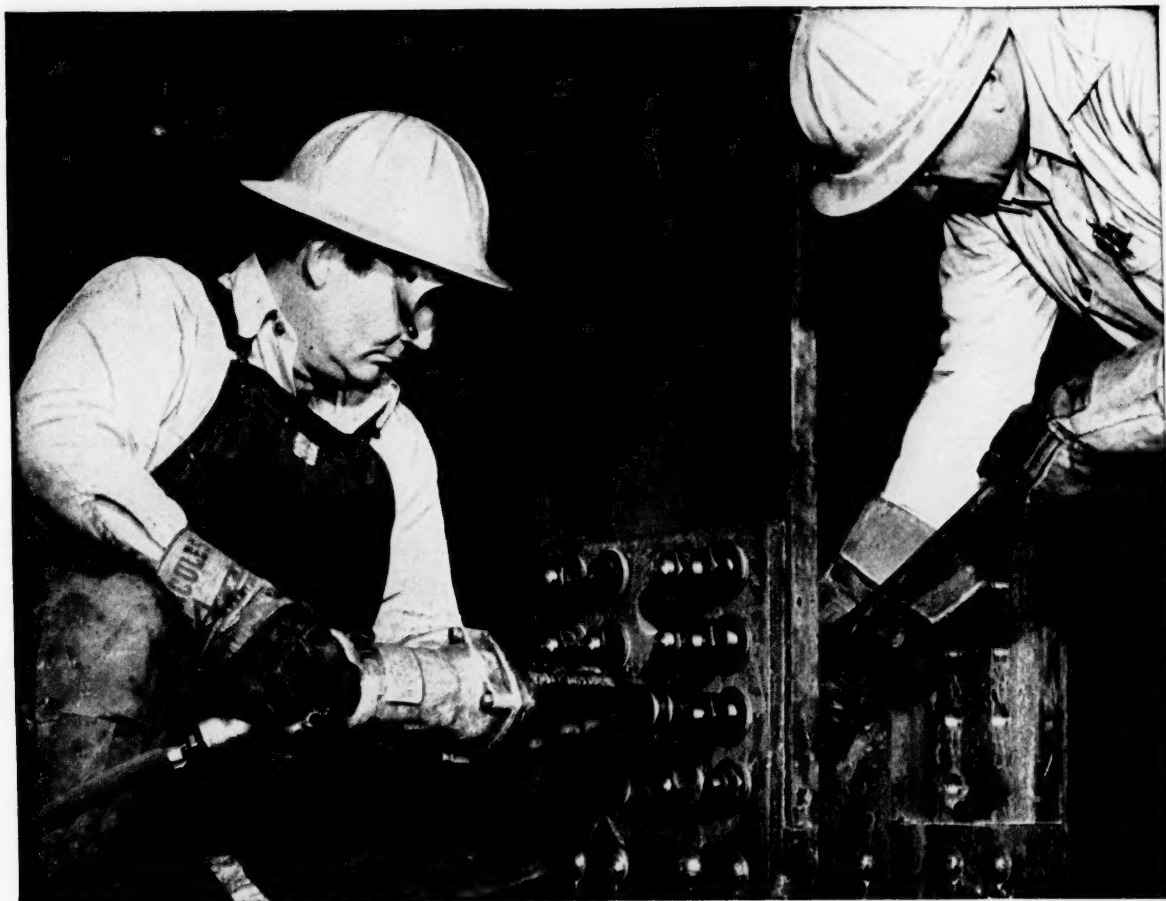
Clean Pressure Treated
TIES — POLES — PILING — LUMBER

75 Years' Experience in the Preservation of
Forest Products

TREATING PLANTS
JACKSONVILLE, FLA. • EDDINGTON, PA. • NORFOLK, VA.

INDEX TO ADVERTISERS

-A-		GLAMORGAN PIPE FOUNDRY COMPANY .. 65		-Q-	
AFFILIATED NATIONAL HOTELS	59	GOLDSMITH, GUSTAVE M.	64	QUINN WIRE & IRON WORKS	67
Agency—Alert Advertising Agency		GULF POWER CO.	16	Agency—Lessing Advertising Co.	
ALABAMA POWER CO.	12, 16	-H-		-R-	
Agency—Sparrow Advertising Agency		H & P MACHINERY COMPANY	63	RADER ENGINEERING CO.	64
ALLIED STEEL PRODUCTS CORPORATION ..	67	HARDAWAY CONTRACTING COMPANY ..	65	REPUBLIC STEEL CORP.	6
Agency—Advertising Engineers		HARRINGTON & CORTEYOU	64	Agency—Meldrum & Fewsmith, Inc.	
AMERICAN APPRAISAL CORPORATION ...	22	HARRIS, INC., FREDERIC R.	64	RESALE DEPARTMENT	63
Agency—The Buchen Co.		HEINEKEN, W. P.	63	ROBERT AND COMPANY ASSOCIATES ..	64
AMERICAN BRIDGE DIV., U. S. STEEL CORP.	25	HOFFMAN CO., A. JAY	63	Agency—Liller, Neal & Battle	
Agency—Batten, Barton, Durstine & Osborn		HOLSTON STEEL STRUCTURES	60	RUBEROID COMPANY	24
AMERICAN CREOSOTE WORKS	24	Agency—L. F. McCarthy & Co.		Agency—Fuller & Smith & Ross	
AMERICAN TELEPHONE & TELEGRAPH CO.	51	HOOSIER ENGINEERING COMPANY	65	RUMMEL, KLEPPER & KAHL	64
Agency—N. W. Ayer & Sons, Inc.		HOWARD, NEEDLES, TAMMENT &	64	RYERSON & SON, INC., J. T.	66
ARMCO DRAINAGE & METAL PRODUCTS ..	57	BERGENDOFF	64	Agency—Aubrey, Finley, Marley & Hodgson	
Agency—N. W. Ayer & Sons, Inc.		HUNTING, LARSEN & DUNNELLS	64	-S-	
ARUNDEL CORPORATION	—	-I-		SANDERSON & PORTER	64
ASSOCIATED INDUSTRIAL ENGINEERS ..	64	INDUSTRIAL PROPERTIES CORP.	14	Agency—Calkins & Holden	
ATLANTIC STEEL COMPANY	55	Agency—J. P. Dewey		SAUERISEN CEMENTS CO.	60
Agency—Lowe & Stevens, Inc.		INGALLS IRON WORKS CO.	—	Agency—William Cohen Advertising Agency	
-B-		INTERNATIONAL ENGINEERING CO.	64	SEABOARD AIR LINE RAILROAD COMPANY ..	—
BELMONT IRON WORKS	65	INTERNATIONAL MIN. & CHEM. CORP.	—	Agency—The Caples Co.	
BETHLEHEM STEEL CO.	69	Agency—C. Franklin Brown, Inc.		SLOCUM & CO., W. W.	64
Agency—Jones & Brakely, Inc.		-K-		SNARE CORPORATION, FREDERICK ..	64
BITUMINOUS COAL INSTITUTE	21	KERRIGAN IRON WORKS, INC.	—	SOUTH CAROLINA ELECTRIC & GAS CO. ..	—
Agency—Benton & Bowles, Inc.		Agency—C. P. Clark, Inc.		Agency—Tobias & Co.	
BLAIR, INC., ALGERNON	65	KINNEAR MFG. CO.	5	SOUTHERN CO.	16
BOX 5020, BILTMORE, N. C.	63	Agency—Wheeler, Kight & Gainey		Agency—Liller, Neal & Battle	
BRISTOL STEEL & IRON WORKS, INC.	65	KUSAN, INC.	19	SOUTHERN LEAD BURNING CO.	65
BUFFALO TANK CORPORATION	67	-L-		SOUTHERN NATURAL GAS CO.	—
BURFORD, HALL & SMITH	65	LAW, BARROW & AGEE LABORATORIES, INC.	64	SOUTHERN RAILWAY SYSTEM	23
BUTLER MFG. CO.	8	LESTAN CORP.	63	Agency—Cunningham & Walsh, Inc.	
Agency—Aubrey, Finley, Marley & Hodgson		-M-		STANDARD STEEL SPRING COMPANY ..	62
-C-		MAHON COMPANY, R. C.	70	STONE & WEBSTER ENGINEERING CORP. ..	—
CATTIE & BROTHERS, JOSEPH P.	65	Agency—Anderson, Inc.		Agency—Harold Cabot & Co.	
CHICAGO BRIDGE & IRON COMPANY	15	MANHATTAN PERFORATED METAL CO. ..	65	SVERDRUP & PARCEL, INC.	64
Agency—Russell T. Gray, Inc.		MISSISSIPPI POWER CO.	16	-T-	
CITIES SERVICE CO.	17	MOORE & CO., INC., JOE L.	—	TENNESSEE COAL & IRON DIV.	—
Agency—Albert Frank-Guenther Law		Agency—J. Howard Allison & Co.		Agency—Batten, Barton, Durstine & Osborn	
COMMERCIAL ENVELOPE CO.	—	MOORHEAD ELECT. MACH'Y CO.	63	TOLEDO TESTING LABORATORY	64
CONNORS STEEL CO.	2	MUNDT & SONS, CHARLES	67	TRINITY PORTLAND CEMENT DIVISION	—
Agency—Robert Luckie & Co.		-N-		Agency—Harris & Bond, Inc.	
-D-		NASHVILLE BRIDGE CO.	14	-U-	
DALTON SUPPLY CO.	63	NEWPORT STEEL CORP.	—	UNION TRUST COMPANY OF MARYLAND ..	—
DAVIDSON PIPE CO., INC.	63	Agency—Jaap-Orr, Inc.		U. S. PIPE & FOUNDRY COMPANY	—
DAVISON PUBLISHING CO.	—	NORFOLK & WESTERN RAILWAY CO.	26	Agency—H. B. Humphrey, Alley & Richards, Inc.	
DAY & ZIMMERMAN, INC.	64	Agency—Houck & Company		U. S. STEEL CORP.	25
DIAMOND MFG. CO.	65	NORTH CAROLINA DEPT. OF CONSERVATION AND DEVELOPMENT	53	Agency—Batten, Barton, Durstine & Osborn	
Agency—Frederick B. Garrahan		Agency—Bennett Advertising, Inc.		UNIVERSITY OF ECONOMICS FOUNDATION	56
DRAVO CORP.	22	NORTH CAROLINA GRANITE CORP.	—	-V-	
Agency—Ketchum, McLeod & Grove		Agency—Houck & Company		VIENER & SONS, HYMAN	56
DUVAL ENGINEERING CO.	65	NO. 9804	62	VIRGINIA ENGINEERING COMPANY, INC. .	65
-E-		NO. 9805	63	-W-	
EATON & BELL	63	-O-		WAGNER COMPANY, ARTHUR	63
ELECTRIC EQUIPMENT CO.	63	O'BRIEN, CLARENCE J.	63	WATSON & HART	64
Agency—Charles R. Rumrill Co.		O'BRIEN MACHINERY CO.	63	WEBER & CO.	63
ELECTRIC SERVICE COMPANY	63	OLEN ENVELOPE CO.	—	WHITMAN, REQUARDT & ASSOCIATES ..	64
Agency—S. C. Baer Co.		O'NEAL STEEL WORKS	4	WIEDEMAN & SINGLETON, INC.	64
EPPINGER AND RUSSELL COMPANY	67	Agency—Barnett & Barnett		WIGHT & CO.	64
-F-		-P-		WILEY & WILSON	64
FISHER COMPANY, ADAM	63	PALMER & BAKER, INC.	64	WISCONSIN MOTOR CORPORATION	61
Agency—Shaffer-Brennan-Margulis Advtg.		PARSONS, BRINCKERHOFF, HALL & MacDONALD	64	Agency—Paulson-Gerlach & Associates	
FLORIDA POWER & LIGHT CO.	3	P. O. BOX 1351	63	WOOTEN & WOOTEN	64
Agency—Bevis & Tyler, Inc.		Agency—Diener & Dorskind, Inc.		-Y-	
FORD, BACON & DAVIS, INC.	64	-Q-		YOUNGSTOWN SHEET & TUBE COMPANY .	20
Agency—Victor A. Smith		GLAMORGAN PIPE FOUNDRY COMPANY .. 65		Agency—Griswold-Eshleman Co.	
FROEHLING & ROBERTSON	65	GOLDSMITH, GUSTAVE M. 64		QUINN WIRE & IRON WORKS	
-G-		GULF POWER CO. 16		Agency—Lessing Advertising Co.	
GEMAN ASSOCIATES	65	-H-		-R-	
GENERAL COAL CO.	—	H & P MACHINERY COMPANY	63	RADER ENGINEERING CO.	64
Agency—Altlin-Kynett Co.		HARDAWAY CONTRACTING COMPANY ..	65	REPUBLIC STEEL CORP.	6
GENERAL PORTLAND CEMENT CO.	—	HARRINGTON & CORTEYOU	64	Agency—Meldrum & Fewsmith, Inc.	
Agency—Harris & Bond, Inc.		HARRIS, INC., FREDERIC R.	64	RESALE DEPARTMENT	63
GEORGIA POWER CO.	16	HEINEKEN, W. P.	63	ROBERT AND COMPANY ASSOCIATES ..	64



Steelwork goes up faster with High-Strength Bolts

To put up steelwork quickly, more and more erectors are using Bethlehem High-Strength Bolts to join the structural members.

Bethlehem High-Strength Bolts save construction time because they can be installed with little effort. They are used with heavy semi-finished nuts, drawn up with power wrenches to make a secure joint.

To assemble Bethlehem High-Strength Bolts, two hardened steel washers are used with each bolt, one

under the head, the other under the nut. This permits the development of maximum clamping force to resist slippage without deforming the connected material.

Bethlehem High-Strength Bolts are used in place of field-driven rivets. They are made at our fasteners plant at Lebanon, Pa., and are carefully heat-treated by quenching and tempering, to meet the requirements of ASTM Specification A-325. They are stocked in a wide range of sizes.

A letter or postcard to the nearest Bethlehem sales office will bring you a copy of our informative booklet, "High-Strength Bolting for Structural Joints," by return mail.

BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

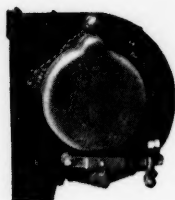
On the Pacific Coast Bethlehem products are sold by
Bethlehem Pacific Coast Steel Corporation, Export
Distributor: Bethlehem Steel Export Corporation



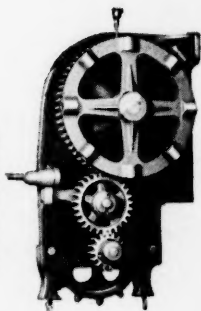
Bethlehem supplies every type of Fastener

Rolling Steel Doors

Standard or Automatic Underwriters' Labeled Types!



Mahon Release Device and Governor on the Automatic Closing Mechanism of a Mahon Underwriters' Labeled Rolling Steel Fire Door. In case of fire, Fusible Link releases the closing mechanism and the door closes automatically.



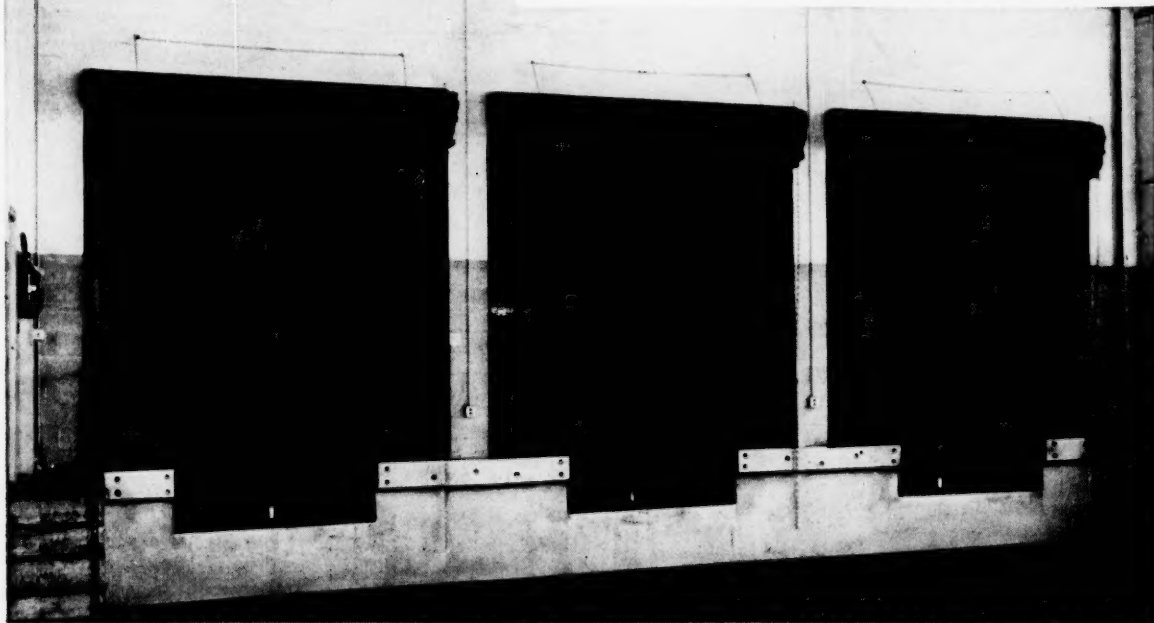
Mahon Release Device on the Chain-Gear Operator of a Mahon Mechanically Operated, Underwriters' Labeled, Automatic Rolling Steel Fire Door. Fusing of the Fusible Link, which releases the Automatic Closing Mechanism, simultaneously disengages the Chain-Gear Operator.

Manually, Mechanically, or Power Operated

Below you see three Mahon Automatic Underwriters' Labeled Rolling Steel Doors installed on fire-wall openings of an enclosed shipping dock. These doors normally remain open, but are equipped with mechanical chain-gear operators which permit closing or opening at will. If a fire should occur while they are in the open position, they automatically close and prevent the spread of fire through the openings. This is one use for one type of rolling steel door. Many types are produced by Mahon to meet virtually any door requirement. Mahon quick-opening, quick-closing power operated rolling steel doors offer more desirable features than any other type of door . . . the vertical roll-up action utilizes no usable space either inside or outside the door opening. There are no overhead tracks or other obstructions to interfere with crane operations. No other type of door offers these advantages of space economy and compactness in operation. In addition, rolling steel doors are permanent—their all-metal construction assures a lifetime of trouble-free service and maximum protection. When you select a rolling steel door, check specifications carefully . . . you will find many extra-value features in Mahon doors. See Sweet's Files for complete information including Specifications, or write for Catalog G-54.

THE R. C. MAHON COMPANY

Detroit 34, Michigan • Chicago 4, Illinois • Representatives in all Principal Cities
Manufacturers of Rolling Steel Doors, Grilles, and Automatic Closing Underwriters' Labeled Rolling Steel Fire Doors and Shutters; Insulated Metal Walls and Wall Panels; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms.



ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

Three Mahon Underwriters' Labeled, Automatic Rolling Steel Fire Doors installed on openings to an enclosed truck loading dock in a new plant for Towne-Robinson Nut Co., Detroit, Mich. Austin Engineers, Inc., Designers. The Austin Company, Cleveland, Ohio, Gen. Contrs.

MAHON